



The Status of Citizen Health  
in Greater Williamsburg:  
What Are Community  
Health Indicators Telling Us?

October 2015



# Table of Contents

Executive Summary .....	iv
<i>Objective</i> .....	iv
<i>Scope</i> .....	iv
<i>Structure</i> .....	iv
<i>Findings</i> .....	iv
<i>Recommendations</i> .....	v
Section 1: Demographic Profile .....	1
Section 1.1: Population Growth and Aging.....	1
Figure 1.1: Population of Greater Williamsburg by Locality by Year, 2000-2014 .....	1
Table 1.1: Population Projections for Greater Williamsburg by Locality, 2014-2040 (2011) .....	2
Section 1.2: Age Distribution.....	3
Table 1.2A: Percent of the Population by Age Cohort (2013).....	3
Table 1.2B: Numerical Population by Age Cohort (2013).....	4
Section 1.3: Race and Ethnicity .....	4
Table 1.3: Percent of the Greater Williamsburg Population by Race and Ethnicity (2013) .....	4
Section 2: Health Profile .....	5
Section 2.1 Health Risks .....	5
Table 2.1A: Unhealthy Behaviors in Adults over Age 18 (2013).....	5
Table 2.1B: Unhealthy Behaviors in Youth Between the ages of 14 and 19 (2013).....	6
Section 2.2: Access to Primary and Preventative Care .....	6
Table 2.2: Indicators of Access to Primary and Preventative Care (2013).....	6
Figure 2.2: Percent of Female Medicare Enrollees Ages 67-69 Having at Least One Mammogram within the Last Two Years (2012).....	7
Section 2.3: Chronic Illness and Poor Health.....	8
Table 2.3: Number of People with Chronic Illnesses by Condition (2013) .....	8
Section 2.4: Behavioral and Mental Health .....	9
Table 2.4: Behavioral Health Discharges by Condition (2013).....	9
Section 2.5: Quality of Care.....	10
Table 2.5A Prevention Quality Indicator (PQI) Discharges by Condition (2013) .....	11
Table 2.5B: Hospital Readmission Rates (2012) .....	11
Section 3: Social and Economic Determinants of Health .....	12
Section 3.1: Unemployment .....	12
Figure 3.1: Percent of the Labor Force that is Unemployed by Year, 2000-2014 .....	12
Section 3.2: Poverty.....	13
Figure 3.2A: Poverty Rate by Locality by Year, 2000-2013.....	13
Figure 3.2B: Child Poverty Rate by Locality by Year, 2000-2013 .....	14
Section 3.3: Medicaid Enrollment.....	14
Figure 3.3: Medicaid Enrollees as a Percentage of the Population by Year, 2009-2014 .....	15
Section 3.4: SNAP Enrollment .....	15
Figure 3.4: SNAP Enrollees as a Percentage of the Population by Year, 2005-2014.....	16
Section 3.5: TANF Enrollment .....	16
Figure 3.5: TANF Enrollees as a Percentage of the Population by Year, 2005-2014.....	17
Section 3.6: Teen Pregnancy.....	17
Figure 3.6: Teen Birth Rate by Year, 1998-2012.....	18
Table 3.6: Teen Birth Rate by Race (2012).....	18
Section 3.7: Children in Single Parent Households .....	19

Table 3.7A: Number of Children by Type of Household (2009-2013 Five Year Estimates) .....	19
Table 3.7B: Percent of Children by Type of Household (2009-2013 Five Year Estimates) .....	19
Section 3.8: Medicaid Expansion and the Uninsured.....	20
Figure 3.8: Percent of the Non-Elderly Population without Insurance by Year, 2006-2013.....	20
Section 3.9: Safety-Net Clinics and the Uninsured .....	21
Section 4: The Path Forward .....	21
Bibliography .....	22
Appendix 1 .....	24
Table 1: Population by Year for Greater Williamsburg and Virginia.....	24
Figure 1: Population Projections for Greater Williamsburg by Year, 2020-2040.....	25
Appendix 2 .....	26
Figure 2: Population Projections for the Number of Seniors in Greater Williamsburg by Year, 2020-2040.....	26
Figure 3: Population Projections for the Seniors as a Percent of the Population in Greater Williamsburg by Year, 2020-2040.....	27
Appendix 3 .....	28
Table 2: Percent of the Total Population by Cohort (2013).....	28
Table 3: Numerical Population by Cohort (2013).....	28
Appendix 4 .....	29
Table 4: Selected Measures of Primary Care Access by Race (2012).....	29
Appendix 5 .....	30
Table 5: Unemployment Rate by Year, 2000-2014 .....	30
Table 6: Number of Individuals Unemployed by Year, 2000-2014.....	30
Appendix 6 .....	31
Table 7: Percent of Population Living in Poverty by Year, 2000-2013.....	31
Table 8: Number of Individuals Living in Poverty by Year, 2000-2013 .....	31
Appendix 7 .....	32
Table 9: Percent of Children under Age 18 Living in Poverty by Year, 2000-2013 .....	32
Table 10: Number of Children under Age 18 Living in Poverty by Year, 2000-2013.....	32
Appendix 8 .....	33
Table 11: Medicaid Enrollees as a Percentage of the Population by Year, 2009-2014 .....	33
Table 12: Number of Medicaid Enrollees by Year, 2009-2014 .....	33
Table 13: Number of Medicaid Clients by Age, Sex, & Race/Ethnicity (2014) .....	33
Table 14: Percent of Medicaid Clients by Age, Sex, & Race/Ethnicity (2014) .....	34
Appendix 9 .....	35
Table 15: SNAP Clients as a Percentage of the Population by Year, 2005-2014 .....	35
Table 16: SNAP Clients by Year, 2005-2014 .....	35
Table 17: Number of SNAP Clients by Age, Sex, and Race/Ethnicity (2014).....	35
Table 18: Percent of SNAP Clients by Age, Sex, and Race/Ethnicity (2014) .....	36
Appendix 10 .....	37
Table 19: TANF Clients as a Percentage of the Population by Year, 2005-2014 .....	37
Table 20: TANF Clients by Year, 2005-2015 .....	37
Table 21: Number of TANF Clients by Age, Sex, and Race/Ethnicity (2014) .....	37
Table 22: Percent of TANF Clients by Age, Sex, and Race/Ethnicity (2014) .....	38
Appendix 11 .....	39
Table 23: Number of Teen Births by Year, 1998-2012.....	39
Table 24: Teen Birth Rate (per 100,000 population) by Year, 1998-2012.....	39

# Executive Summary

## *Objective*

This report presents key findings from the most recent publically available community-level health data sources with the goal of transforming the hard numbers into actionable knowledge. The report is intended to facilitate targeted community dialogue, inform health and human service providers and decision makers, and to serve as a catalyst for collaborative approaches to meet health and human service needs, fill gaps for the vulnerable, and improve the health of the citizens of Greater Williamsburg.

## *Scope*

The area of analysis for the report is Greater Williamsburg, which is comprised of three localities: James City County, York County, and the City of Williamsburg. As of 2014, Greater Williamsburg supported a population of approximately 154,000 people.

## *Structure*

The remainder of the document is divided into four sections. The first section presents and analyzes data on the demographic profile of Greater Williamsburg with a particular focus on demographic trends that will shape future demand for health care and human services in Greater Williamsburg. The second section presents and analyzes data on the health of the community with a particular focus on health risks, health opportunities, and health outcomes. The third section presents and analyzes data on social and economic determinants of health such as unemployment, poverty, and the utilization of public assistance programs. The fourth section briefly concludes.

## *Findings*

On the surface, it may seem that Greater Williamsburg is a relatively affluent and healthy place to live. However, data illustrate that there are many challenges and opportunities concerning the health and wellbeing of the citizens of Greater Williamsburg. For instance:

- Demographic growth and aging contribute to a growing demand for health care and human services within Greater Williamsburg. By 2030, the U.S. Census Bureau predicts that 32% of the population of Greater Williamsburg will be over the age of 60.
- Thousands of Greater Williamsburg residents engage in unhealthy behaviors. For instance, almost two-thirds of the adult population is either overweight or obese, and nearly 90% of high school aged children do not eat enough fruits or vegetables.
- Thousands of Greater Williamsburg residents lack affordable access to health care. For example, over 11,000 adults report being unable to visit a doctor when they needed to because it is too costly.

- Racial disparities exist in the health opportunities available to individuals within Greater Williamsburg. For instance, African American Medicare enrollees living in the City of Williamsburg were approximately 20% less likely to have received a mammogram within the last two years compared to their White counterparts.
- Thousands of Greater Williamsburg residents suffer from chronic illness, poor health, and behavioral health disorders. Over 11,000 adults have diabetes, nearly 35,000 adults have high blood pressure, and over 42,000 have high cholesterol.
- Social and economic determinants of health indicate that Greater Williamsburg has not yet recovered from the recession that began in 2008. Unemployment, poverty, and enrollment in public assistance programs are all higher than they were in 2007.
- From 2000 to 2013, the number of people living in poverty has increased by 72% despite recent reductions in the unemployment rate, suggesting that, although fewer people are unemployed, many are underemployed, working at low-skill, low-wage part-time jobs without health coverage or adequate income to escape the trap of poverty.
- Nearly 14,000 people are uninsured, but over 7,500 are already eligible for assistance in the form of subsidized insurance or publically provided coverage. Many others have insurance, but still lack access to affordable health care due to high premiums and deductibles. Over 4,000 more uninsured people would be eligible for coverage if Virginia expanded Medicaid under the Patient Protection and Affordable Care Act.
- Safety-Net clinics provide an invaluable service to the underserved and uninsured population within Greater Williamsburg. In collaboration with the Williamsburg Health Foundation, three safety-net clinics in the area (Olde Towne Medical and Dental Center, Angels of Mercy Free Clinic, and Lackey Clinic) manage to treat approximately 4,500 unique uninsured patients each year, or about one-third of the uninsured population. Yet, despite the exceptional effort that these clinics put into helping meet the health needs of the vulnerable, approximately two in three uninsured people appear not to be getting regular health care. If or when they do receive care, it is likely in the form of uncompensated emergency room visits.

### *Recommendations*

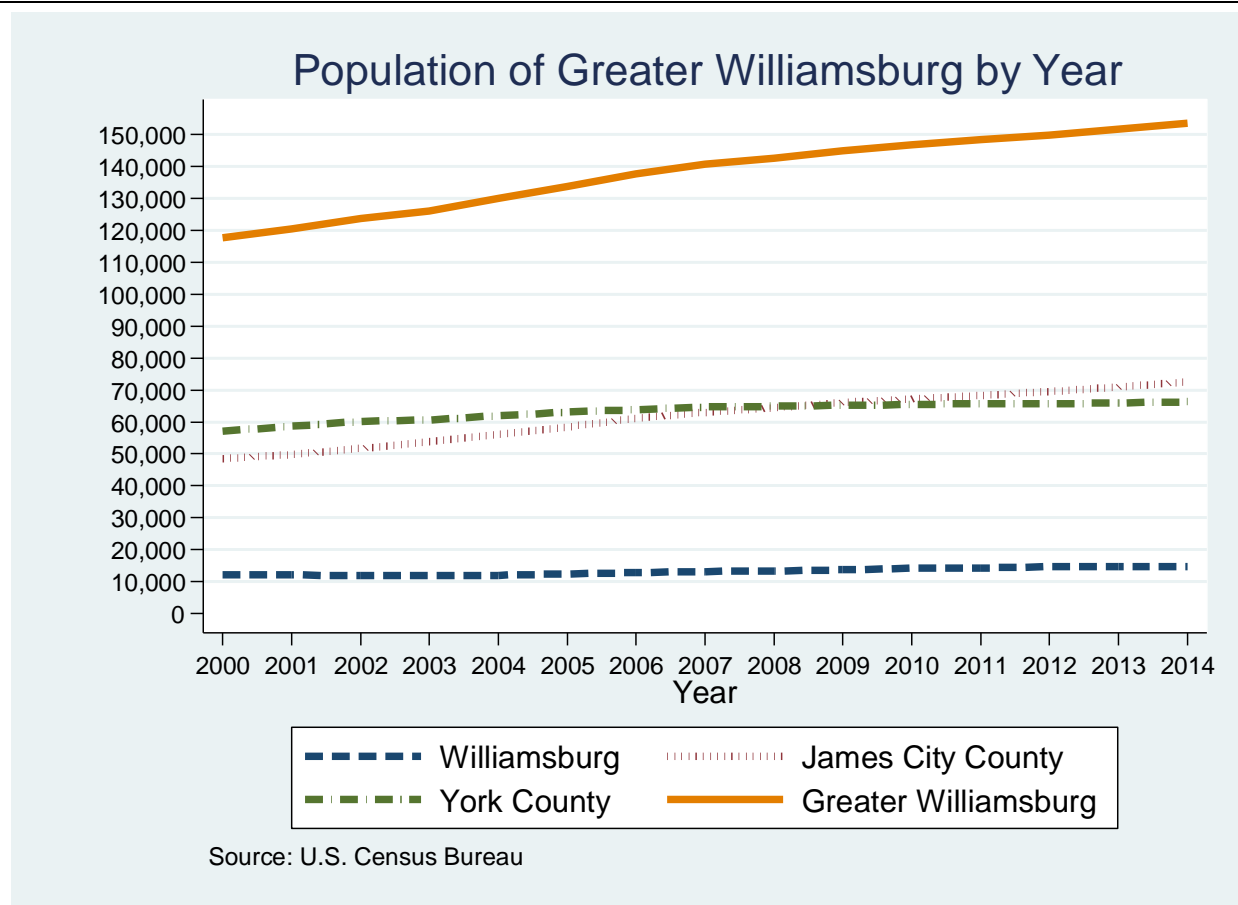
We urge our community partners to pursue programs to improve access to affordable care, curb unhealthy behavior, reduce the risk of chronic illness and behavioral health disorders, and eliminate disparities caused by race, income, age, or household type. Through focused and collaborative efforts, we believe that it is possible to enhance the health and well-being of our community by raising awareness of community health needs and promoting healthy lifestyles.

## Section 1: Demographic Profile

### Section 1.1: Population Growth and Aging

According to population estimates from the American Community Survey (ACS) produced by the U.S. Census Bureau, the population of Greater Williamsburg has grown at a faster rate than the population of Virginia as a whole. As illustrated by Figure 1.1, between 2000 and 2014, the population of Greater Williamsburg increased from 117,667 persons to 153,616 persons – a change of roughly 30.6% (compared to only 17.2% for Virginia). However, this population growth has been unevenly distributed among the different localities within Greater Williamsburg. From 2000 to 2014, the population of the City of Williamsburg increased by 22.3%; the population of James City County increased by 49.5%, and the population of York County increased by 16.1%. As this dramatic increase continues, local health care and human service providers will find themselves dealing with the added strain of providing care to a growing number of residents.

**Figure 1.1: Population of Greater Williamsburg by Locality by Year, 2000-2014**



Year	Virginia	Williamsburg	James City County	York County	Greater Williamsburg
2000	7,105,817	12,012	48,536	57,119	117,667
2014	8,326,289	14,691	72,583	66,342	153,616
Change	1,220,472	2,679	24,047	9,223	35,949
% Change	17.2%	22.3%	49.5%	16.1%	30.6%

Source: U.S. Census Bureau, 2014 ACS Estimates

Using data from the U.S. Census Bureau, the Weldon Cooper Center for Public Service estimates that the population of Greater Williamsburg will continue to grow from 153,616 persons in 2014 to 252,183 by 2040 – a change of 64.2%, or about 2.5% per year on average. However, as illustrated by Table 1.1, much of this growth will be fueled by James City County, where the population is expected to increase by 88.4% between 2014 and 2040, or an average of 3.4% per year. By contrast, the City of Williamsburg and York County are expected to grow at lower rates. From 2014 to 2040, the population of the City of Williamsburg is expected to grow by 21.3%, or an average of 0.8% per year, while the population of York County is expected to grow by 47.2%, or an average of 1.8% per year.<sup>1</sup>

**Table 1.1: Population Projections for Greater Williamsburg by Locality, 2014-2040 (2011)**

Year	Williamsburg	James City County	York County	Greater Williamsburg
2014	14,691	72,583	66,342	153,616
2040	17,820	136,736	97,627	252,183
Change	3,129	64,153	31,285	98,567
% Change	21.3%	88.4%	47.2%	64.2%

Source: Weldon Cooper Center for Public Service

A large portion of the population growth will come from increases in the population over age 60. By 2040, the number of persons over age 60 living in Greater Williamsburg will increase to 79,744, or about 32% of the overall population.<sup>2</sup> However, the process of aging will affect certain localities more than others. In particular, the percent of the population over age 60 is expected to remain constant in the City of Williamsburg at 20% and in York County at 23% between 2014 and 2040. On the other hand, the percent of the population over age 60 is expected to increase to 40% in James City County, where 54,049 individuals over age 60 are expected to reside. Again, as with population growth more generally, the process of aging will place a larger burden on local health care health care and human service providers as they adapt to a larger and older population.

This conclusion is especially important in context: A recent study published in the *Journal of the American Medical Association (JAMA) Internal Medicine* indicates that, despite having a longer life expectancy than previous generations, “US (*sic*) baby boomers have higher rates of chronic disease, more disability, and lower self-rated health than members of the previous generation at the same age.” Moreover, the authors found that the baby boom generation has a higher incidence of obesity, high blood pressure, diabetes, and cholesterol, which they argue will contribute to systemic increases in health care costs. Furthermore, the authors stress the need for increased numbers of health professionals as baby boomers age as well as policies that expand efforts at prevention and healthy lifestyle promotion in the baby boomer generation.<sup>3</sup>

<sup>1</sup> Note: See Appendix 1 for detailed population projections for Greater Williamsburg.

<sup>2</sup> Note: See Appendix 2 for detailed population projections for seniors over age 60.

<sup>3</sup> King, Dana E., Eric Matheson, Svetlana Chirina, Anoop Shankar, and Jordan Broman-Fulks. “The Status of Baby Boomers’ Health in the United States: The Healthiest Generation?” *JAMA Internal Medicine* 173, no. 5 (2013): 385-386.



## Section 1.2: Age Distribution

According to the U.S. Census Bureau, as illustrated by Table 1.2A:

- 5.0% of the population of Greater Williamsburg is under age 5.
- 21.5% of the population of Greater Williamsburg is under age 18.
- 60.5% of the population of Greater Williamsburg is between the ages of 18 and 64.
- 18.0% of the population of Greater Williamsburg is over age 65.
- 2.1% of the population of Greater Williamsburg is over age 85.

When compared to Virginia, the population of Greater Williamsburg is relatively older, considering that only 13.4% of the population of Virginia is older than age 65.<sup>4</sup>

**Table 1.2A: Percent of the Population by Age Cohort (2013)**

Age Cohort	Virginia	Williamsburg	James City County	York County	Greater Williamsburg
Under 5	6.2%	3.1%	5.1%	5.4%	5.0%
Under 18	22.6%	10.6%	21.1%	24.4%	21.5%
18 to 24 years	10.0%	36.5%	7.5%	9.5%	11.3%
18 to 64 years	64.1%	74.2%	56.5%	61.6%	60.5%
65 years and over	13.4%	15.1%	22.4%	14.0%	18.0%
85 years and over	1.6%	1.7%	2.8%	1.4%	2.1%

Source: U.S. Census Bureau, 2013 ACS Estimates

However, despite their similarities and geographic proximity, the age profile of James City County, the City of Williamsburg, and York County have some substantial differences. One reason for these differences is the disproportionate amount of young adults and College of William and Mary students living in the City of Williamsburg. For example:

- 74.2% of the population of the City of Williamsburg is between the ages of 18 and 64 compared to 56.5% for James City County and 61.6% for York County.
- 36.45% of the population of the City of Williamsburg is between the ages of 18 and 24 compared to 7.5% for James City County and 9.5% for York County.

A second reason for the substantial differences is the disproportionate number of senior citizens living in James City County. For example:

- 22.4% of the James City County population is over the age of 65 compared to 15.1% for the City of Williamsburg and 14.0% for York County.
- 2.8% of the population of James City County is over the age of 85 compared to 1.7% for the City of Williamsburg and 1.4% for York County.

These differences are also apparent in the median age for each locality. The median age in the City of Williamsburg is only 26.6 years, compared to 37.6 for Virginia, 39.3 for York County, and 45.2 for James City County.<sup>5</sup>

<sup>4</sup> Note: See Appendix 3 for a detailed age profile for Greater Williamsburg

<sup>5</sup> Source: U.S. Census Bureau

In numerical terms, as illustrated by Table 1.2B, Greater Williamsburg supports a population of:

- 7,644 children under age 5,
- 32,603 children under age 18,
- 91,982 nonelderly adults between age 18 and 64,
- 17,759 young adults between age 18 and 24,
- 27,406 adults over age 65,
- and 3,190 adults over age 85.

**Table 1.2B: Numerical Population by Age Cohort (2013)**

Age Cohort	Virginia	Williamsburg	James City County	York County	Greater Williamsburg
Under 5	512,115	478	3,594	3,572	7,644
Under 18	1,864,535	1,616	14,848	16,139	32,603
18 to 24 years	829,207	5,542	5,316	6,301	17,159
18 to 64 years	5,290,489	11,288	39,850	40,844	91,982
65 years and over	1,105,381	2,302	15,818	9,286	27,406
85 years and over	135,747	263	1,975	952	3,190

Source: U.S. Census Bureau, 2013 ACS Estimates

### Section 1.3: Race and Ethnicity

As illustrated by Figure 1.3, approximately 79.40% of the population of Greater Williamsburg is White. Blacks are the second largest group, accounting for 13.55% of the population of Greater Williamsburg. The remaining groups are much smaller: 0.36% of the population is composed of American Indians or Alaskan Natives, 3.88% is composed of Asian Americans, 0.11% is composed of Hawaiian Natives and other Pacific Islanders, 2.71% identify as two or more races, and 4.68% identify as either Hispanic or Latino regardless of race. The City of Williamsburg has the largest minority presence as a percent of the population of each of the localities within Greater Williamsburg – an important fact when considering how health care opportunities, risks, and outcomes are likely to differ by race.

**Table 1.3: Percent of the Greater Williamsburg Population by Race and Ethnicity (2013)**

Race/Ethnicity	Williamsburg	James City County	York County	Greater Williamsburg
White	76.5%	81.7%	77.7%	79.4%
Black	14.3%	13.3%	13.6%	13.6%
Native American	0.3%	0.3%	0.4%	0.4%
Asian	5.9%	2.3%	5.1%	3.9%
Hawaiian/Pacific Islander	0.1%	0.1%	0.2%	0.1%
Two or More Races	3.0%	2.3%	3.1%	2.7%
Hispanic or Latino (All Races)	6.7%	4.5%	4.4%	4.7%

Source: U.S. Census Bureau, 2013 ACS Estimates

## Section 2: Health Profile

### Section 2.1 Health Risks

According to estimates from the Virginia Atlas of Community Health, as illustrated by Table 2.1A, thousands of Greater Williamsburg residents engage in unhealthy behaviors. Reducing these behaviors will help reduce prevalence of chronic illnesses and is essential for improving the health and overall well-being of our community. As of 2013, in Greater Williamsburg:

- 15,929 adults over age 18 (13%) smoke.
- 23,113 adults over age 18 (61%) were overweight or obese.
- 94,763 adults over age 18 (80%) did not eat the recommended amount of fruit or vegetables.
- 56,877 adults over age 18 (48%) did not meet physical activity recommendations.

**Table 2.1A: Unhealthy Behaviors in Adults over Age 18 (2013)**

Indicator	James City County	Williamsburg	York County	Greater Williamsburg
Smoking	7,743	2,221	5,965	15,929
Binge Drinking	9,956	2,221	10,936	23,113
Not Enough Fruits and Vegetables	43,695	11,797	39,271	94,763
Not Enough Physical Activity	25,996	6,523	24,358	56,877

Source: Virginia Atlas of Community Health

As illustrated by Table 2.1B, like their adult counterparts, many high school aged youth living in Greater Williamsburg engage in behaviors that put their health at risk.

- 12,415 high school age youth (88%) do not eat enough vegetables.
- 12,233 high school age youth (87%) do not eat enough fruit.
- 3,924 high school age youth (28%) watch three or more hours of television per day.
- 4,382 high school age youth (31%) drink alcohol.
- 3,024 high school age youth (21%) use tobacco products.
- 2,039 high school age youth (14%) do not get enough physical activity.
- 1,330 high school age youth (9%) have three or more sugary drinks per day.

Programs designed to change these unhealthy behaviors could reduce the number of people who will suffer in the future from chronic diseases. Moreover, “[i]nstilling healthy behaviors and practices during youth, particularly in school settings, is far more cost-effective than waiting until unhealthy behaviors are entrenched.”<sup>6</sup>

<sup>6</sup> “The Power of Prevention,” *National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention* (2009). <http://www.cdc.gov/chronicdisease/pdf/2009-Power-of-Prevention.pdf>

**Table 2.1B: Unhealthy Behaviors in Youth Between the ages of 14 and 19 (2013)**

Indicator	James City County	Williamsburg	York County	Greater Williamsburg
Not Enough Vegetables	4,580	2,270	5,565	12,415
Not Enough Fruit	4,498	2,249	5,486	12,233
3 + Hours of Television	1,480	705	1,739	3,924
Alcohol Users	1,623	792	1,967	4,382
Tobacco Users	1,124	530	1,370	3,024
Not Enough Physical Activity	756	382	901	2,039
3+ Sugary Drinks	494	238	598	1,330

Source: Virginia Atlas of Community Health

## Section 2.2: Access to Primary and Preventative Care

According to estimates from the Virginia Atlas of Community Health, as illustrated by Table 2.2, thousands of Greater Williamsburg residents have trouble accessing physician office visits, dental visits, and recommended preventative screenings. Programs designed to increase access to preventative care, especially for low income individuals, could lead to earlier diagnosis of disease when many illnesses are easier and cheaper to treat, thereby reducing the long-term burden on the health care delivery system. As of 2013, in Greater Williamsburg:

- 11,254 adults over age 18 (9.5%) could not visit a doctor when they needed to because they could not afford it.
- 27,000 adults over age 18 (22.7%) did not have a dental visit last year.
- 10,054 females over age 40 (27.6%) did not have a mammogram within the past two years.
- 9,851 females over age 18 (15.8%) did not have a pap test within the past three years.
- 18,174 men over age 40 (43.9%) did not have a PSA test within the past two years.
- 47,324 adults over age 50 (83.6%) did not have a blood stool test within the past two years.

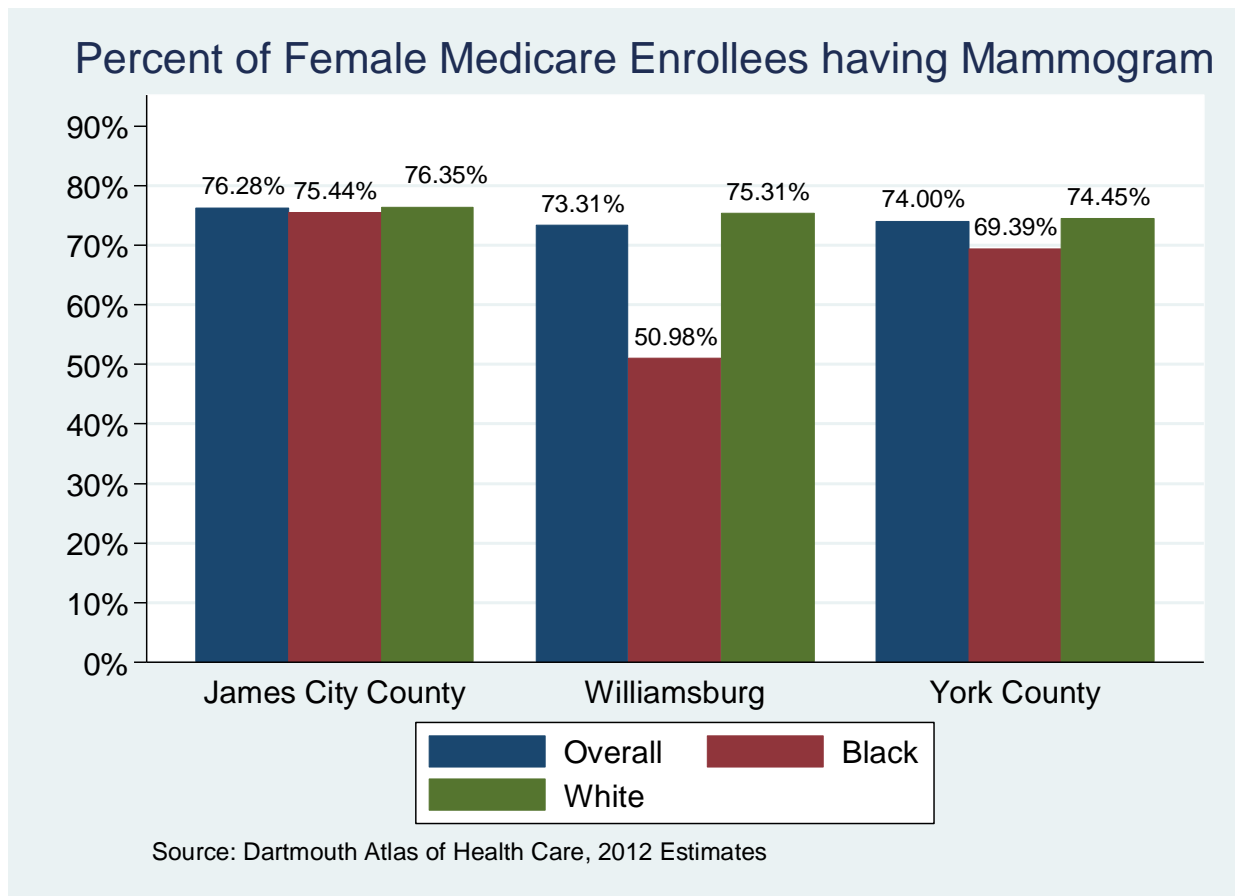
**Table 2.2: Indicators of Access to Primary and Preventative Care (2013)**

Indicator	James City County	Williamsburg	York County	Greater Williamsburg
Adults age 18+ Could Not See Doctor Due to Cost	5,531	1,249	4,474	11,254
Adults age 18+ with No Dental Visit in the Last Year	12,168	2,915	11,930	27,013
Females aged 40+ who have not had a mammogram within the past two years	5,209	674	4,171	10,054
Females aged 18+ who have not a pap test within the past three years	4,649	1,863	3,339	9,851
Men aged 40+ who have not had a PSA test within the past two years	9,383	1,143	7,648	18,174
Adults aged 50+ who have not had a blood stool test within the past two years	25,180	3,218	18,926	47,324
Adults aged 50+ who have never had a sigmoidoscopy or colonoscopy	7,281	1,351	4,899	13,531

Source: Virginia Atlas of Community Health

Moreover, access to preventative care differs by race. As illustrated by Figure 2.2, Black female Medicare enrollees were less likely to have had a mammogram within the last two years than were White female Medicare enrollees.<sup>7</sup> Specifically, in James City County, 75.44% of Black female Medicare enrollees between the ages of 67 and 69 had a mammogram within the last two years compared to 76.35% of White Medicare enrollees. In York County, 69.39% of Black female Medicare enrollees between the ages of 67 and 69 had a mammogram within the last two years compared to 74.45% of White Medicare enrollees. However, the disparity is nowhere more noticeable than in the City of Williamsburg, where only 50.98% of Black female Medicare enrollees between the ages of 67 and 69 had a mammogram within the last two years compared to 73.31% of White Medicare enrollees. Although this finding only relates to female Medicare enrollees within a certain age range and mammograms, the implications are generalizable to other types of preventative care (such as blood-lipid tests, eye exams, hemoglobin HbA1c tests, and so forth) and to other groups within the population (such as children, mothers, middle-aged adults, seniors not yet old enough for Medicare, Medicaid enrollees, and so forth). Furthermore, although this finding only relates to racial differences between Blacks and Whites, it is likely that other non-White races and ethnicities are also less likely to receive recommended preventative care.

**Figure 2.2: Percent of Female Medicare Enrollees Ages 67-69 Having at Least One Mammogram within the Last Two Years (2012)**



<sup>7</sup> Note: See Appendix 4 for a detailed look at measures of primary care access by race

## Section 2.3: Chronic Illness and Poor Health

Chronic illness is a significant challenge in health care and is a major driving factor for increases in health care costs. According to the CDC, more than 75% of all health care spending in the United States is for people with chronic conditions, and that share is growing.<sup>8</sup> One influential factor contributing to the increasing costs associated with treating chronic illness is the cost of new medications being developed to treat conditions such as high cholesterol. For instance, Praluent, a PCSK9 inhibitor designed to be more effective at lowering cholesterol than statins, is expected to cost \$14,600 dollars per year.<sup>9</sup> Likewise, Sovaldi, a medication designed to treat Hepatitis C, a chronic liver disease, will cost an estimated \$1,000 per pill and \$84,000 per 12-week treatment.<sup>10</sup> Yet, even with new and more effective treatments and cures, “7 out of 10 deaths among Americans each year are from chronic diseases.”<sup>11</sup> Sadly, thousands of Greater Williamsburg residents also suffer from chronic illnesses. As illustrated by Table 2.3:

- 27,404 adults over age 18 (23%) have arthritis.
- 10,782 adults over age 18 (9%) have asthma/COPD.
- 11,355 adults over age 18 (10%) have diabetes.
- 34,620 adults over age 18 (29%) have high blood pressure.
- 42,527 adults over age 18 (36%) have high cholesterol.
- 72,723 adults over age 18 (61%) are overweight or obese.
- 22,094 adults over age 18 (19%) are limited in their activities because of health problems.
- 19,797 adults over age 18 (17%) report being in fair or poor health.

**Table 2.3: Number of People with Chronic Illnesses by Condition (2013)**

Condition	James City County	Williamsburg	York County	Greater Williamsburg
Arthritis	12,721	3,747	10,936	27,404
Asthma/COPD	4,978	833	4,971	10,782
Diabetes	5,531	833	4,971	11,335
High Blood Pressure	16,040	4,164	14,416	34,620
High Cholesterol	19,912	4,719	17,896	42,527
Overweight or Obese	34,292	8,605	29,826	72,723
Limited in Activities due to Health Conditions	10,509	2,637	8,948	22,094
Fair or Poor Health Status	9,403	1,943	8,451	19,797

Source: Virginia Atlas of Community Health

<sup>8</sup> “The Power of Prevention,” *National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention* (2009). <http://www.cdc.gov/chronicdisease/pdf/2009-Power-of-Prevention.pdf>

<sup>9</sup> Mangan, Dan, “Cholesterol drug cost worries linger even after spending report,” *CNBC*, August 6, 2015. <http://www.cnbc.com/2015/08/06/cholesterol-drug-cost-worries-linger-even-after-spending-report.html>

<sup>10</sup> Knox, Richard. “\$1,000 Pill For Hepatitis C Spurs Debate Over Drug Prices,” *National Public Radio*, December 30, 2013. <http://www.npr.org/sections/health-shots/2013/12/30/256885858/-1-000-pill-for-hepatitis-c-spurs-debate-over-drug-prices>

<sup>11</sup> “The Power of Prevention,” *National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention* (2009). <http://www.cdc.gov/chronicdisease/pdf/2009-Power-of-Prevention.pdf>

## Section 2.4: Behavioral and Mental Health

Mental illnesses and behavioral disorders occur at near epidemic proportions. Although approximately 1 in 5 Americans suffer from some form of mental illness each year and 1 in 20 suffer from a serious mental illness,<sup>12</sup> fewer than half seek treatment.<sup>13</sup> The problem is exacerbated by the fact that poor mental or behavioral health often contributes to other chronic illnesses. As illustrated by Table 2.4, in Greater Williamsburg in 2013:

- 488 hospital discharges were related to behavioral health.
- 10 hospital discharges were related to adjustment disorder.
- 251 hospital discharges were related to affective psychoses.
- 17 hospital discharges were related to alcohol dependence syndrome.
- 48 hospital discharges were related to depressive disorders.
- 4 hospital discharges were related to drug dependence.
- 15 hospital discharges were related to drug psychoses.
- 16 hospital discharges were related to neurotic disorders.
- 1 hospital discharges were related to nondependent abuse of drugs.
- 14 hospital discharges were related to other nonorganic psychoses.
- 8 hospital discharges were related to other organic psychotic conditions.

**Table 2.4: Behavioral Health Discharges by Condition (2013)**

Condition	James City County	Williamsburg	York County	Greater Williamsburg
All	300	7	181	488
Adjustment Disorder	6	0	4	10
Affective Psychoses	151	4	96	251
Alcohol Dependence Syndrome	12	0	5	17
Alcoholic Psychoses	19	1	17	37
Depressive Disorders	28	2	18	48
Drug Dependence	0	0	4	4
Drug Psychoses	10	0	5	15
Neurotic Disorders	9	0	7	16
Non-Dependent Abuse of Drugs	0	0	1	1
Other Nonorganic Psychoses	9	0	5	14
Other Organic Psychotic Conditions	6	0	2	8
Schizophrenic Disorders	38	0	16	54

Source: Virginia Atlas of Community Health

However, for those with mental illness, there is hope. According to the National Alliance on Mental Illness, “Early engagement and support are crucial to improving outcomes and

<sup>12</sup> “Mental Health Conditions,” *National Alliance on Mental Illness*. Accessed August 7, 2015 at <https://www.nami.org/Learn-More/Mental-Health-Conditions>

<sup>13</sup> “Nearly Half of Americans With Severe Mental Illness Do Not Seek Treatment,” *Cardiovascular News*. Accessed August 7, 2015 at <http://circ.ahajournals.org/content/101/5/e66.full.pdf+html>

increasing the promise of recovery.”<sup>14</sup> According to public health scholars, programs designed to make mental and behavioral health a priority should focus on:<sup>15</sup>

- Overcoming the stigma of mental illness and behavioral disorders,
- Improving public awareness of effective treatment,
- Ensuring the supply of mental health services and providers as well as the delivery of state-of-the-art treatment,
- Tailoring treatment to sex, age, race, and culture,
- Making it easier to find the care that is needed and get access to it,
- And reducing the financial barriers to treatment

## Section 2.5: Quality of Care

According to the Agency for Healthcare Research and Quality (AHRQ), measuring the quality of care quantitatively is necessary to identify “potential problems resulting from a breakdown of health care services by tracking hospitalizations for conditions that should be treatable on an outpatient basis, or that could be less severe if treated early and appropriately.”<sup>16</sup> As a result, the AHRQ developed the Prevention Quality Indicator (PQI), which identifies the number of discharges for ambulatory care sensitive conditions, i.e. conditions for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease.<sup>17</sup> As illustrated by Table 2.5A, in Greater Williamsburg in 2013, there were:

- 1,276 total PQI discharges,
- 15 PQI discharges for asthma in younger adults,
- 13 PQI discharges for Angina,
- 230 PQI discharges for bacterial pneumonia,
- 151 for COPD or asthma in older adults,
- 335 for congestive heart failure,
- 115 for dehydration,
- 179 for diabetes,
- 28 for high blood pressure,
- 7 PQI discharges for perforated appendices,
- And 203 PQI discharges for urinary tract infections.

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<sup>14</sup> “Mental Health Conditions,” *National Alliance on Mental Illness*. Accessed August 7, 2015 at <https://www.nami.org/Learn-More/Mental-Health-Conditions>

<sup>15</sup> “Nearly Half of Americans With Severe Mental Illness Do Not Seek Treatment,” *Cardiovascular News*. Accessed August 7, 2015 at <http://circ.ahajournals.org/content/101/5/e66.full.pdf+html>

<sup>16</sup> “Guide to Prevention Quality Indicators,” *Department of Health and Human Services Agency for Healthcare Research and Quality*, October, 2001. Accessed August 7, 2015 at <http://www.ahrq.gov/downloads/pub/ahrqi/pqiguide.pdf>

<sup>17</sup> Ibid.



**Table 2.5A Prevention Quality Indicator (PQI) Discharges by Condition (2013)**

PQI Discharges	James City County	Williamsburg	York County	Greater Williamsburg
Total	893	31	352	1,276
Asthma in Younger Adults	7	0	8	15
Angina	9	1	3	13
Bacterial Pneumonia	153	6	71	230
COPD or Asthma in Older Adults	108	1	42	151
Congestive Heart Failure	218	4	113	335
Dehydration	89	3	23	115
Diabetes	118	5	56	179
High Blood Pressure	18	5	5	28
Perforated Appendix	3	0	4	7
Urinary Tract Infection	170	6	27	203

Source: Virginia Atlas of Community Health

Although PQIs are based on hospital inpatient data, they provide information about the quality of the health care system outside the hospital setting.”<sup>18</sup> For example, “[p]atients with diabetes may be hospitalized for diabetic complications if their conditions are not adequately monitored or if they do not receive the patient education needed for appropriate self-management.”<sup>19</sup>

In addition to PQIs, readmission rates are a commonly used measure of the quality of care. As illustrated by Table 2.5B, among Greater Williamsburg residents in 2012:

- 14.2% of hospital inpatients patients living in James City County were readmitted within 30 days of discharge, compared to 12.2% in York County and 12.6% in the City of Williamsburg.
- 53.3% of hospital inpatients patients living in James City County had a primary care visit within 14 days of discharge compared to 50.6% in York County and 50.5% in the City of Williamsburg
- 74.0% of hospital inpatients patients living in James City County had an ambulatory care visit within 14 days of discharge compared to 74.8% in York County and 70.1% in the City of Williamsburg
- 19.5% of hospital inpatients patients living in James City County had an emergency room visit within 30 days of discharge compared to 19.7% in York County and 19.6% in the City of Williamsburg

**Table 2.5B: Hospital Readmission Rates (2012)**

Readmission Rates	James City County	York County	Williamsburg
Readmitted within 30 days of discharge	14.2%	12.2%	12.6%
Primary care visit within 14 days of discharge	53.3%	50.6%	50.5%
Ambulatory care visit within 14 days of discharge	74.0%	74.8%	70.1%
Emergency room visit within 30 days of discharge	19.5%	19.7%	19.6%

Source: Dartmouth Atlas of Health Care

<sup>18</sup> Ibid

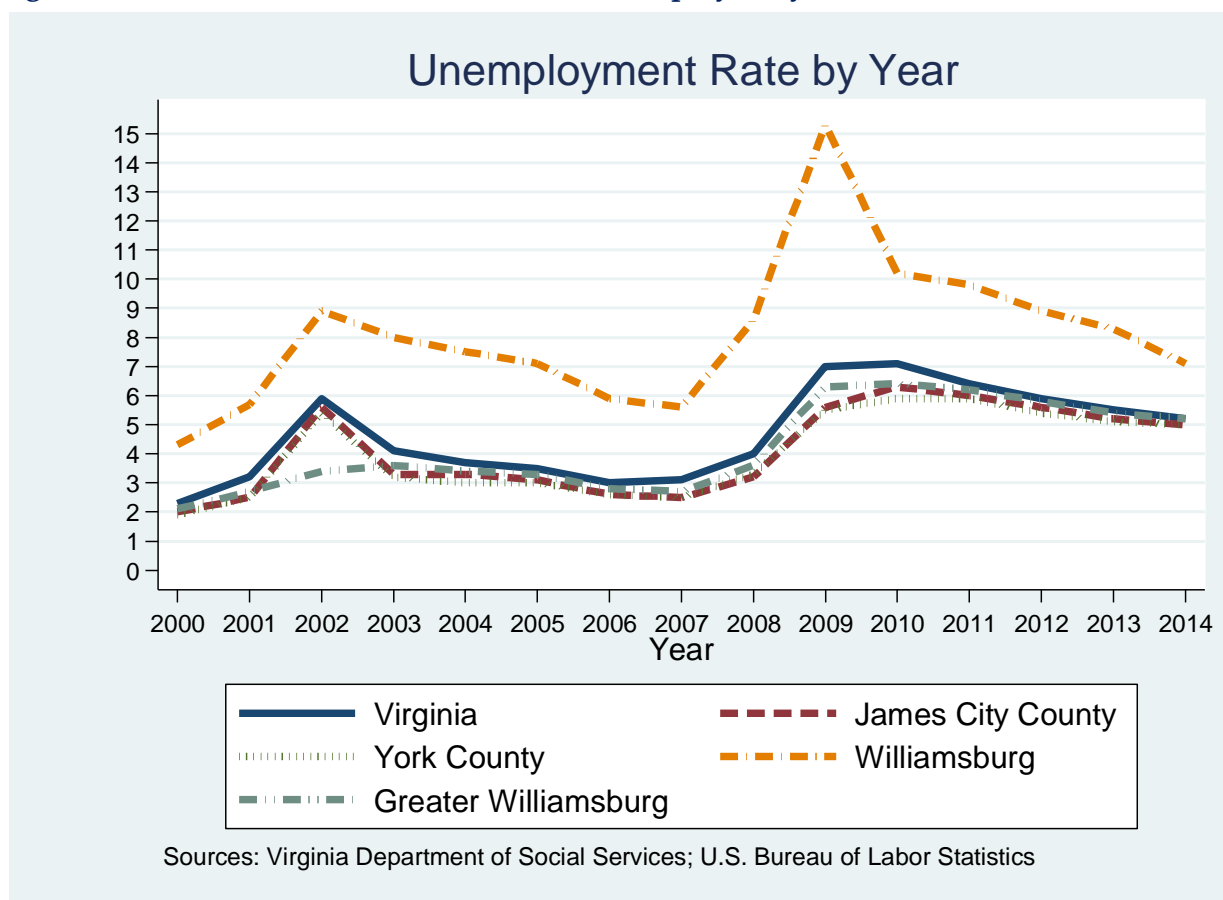
<sup>19</sup> Ibid

## Section 3: Social and Economic Determinants of Health

### Section 3.1: Unemployment

Defined as the percent of the labor force that has no job and is actively searching for work, the unemployment rate has been shown to be both a cause and consequence of poor health.<sup>20</sup> As illustrated by Figure 3.1, the unemployment rate for Greater Williamsburg increased from 2.7% in 2007 to 6.4% in 2010 before declining to 5.2% by 2014. Yet, despite the recent decrease in unemployment, Greater Williamsburg has yet to return to pre-recession levels. Between 2000 and 2014, the unemployment rate of Williamsburg has been consistently higher than the unemployment rate for Virginia, James City County, or York County. For instance, in 2009, the unemployment rate for Williamsburg reached 15.3% compared to 7.0% for Virginia, 5.6% for James City County, and 5.5% for York County. However, because of the comparatively low population, there were only 518 unemployed persons living in Williamsburg compared to 1,847 in James City County and 2,024 in York County.<sup>21,22</sup>

**Figure 3.1: Percent of the Labor Force that is Unemployed by Year, 2000-2014**



<sup>20</sup> Schmitz, Hendrik. "Why Are The Unemployed in Worse Health? The Causal Effect Of Unemployment on Health." *Labor Economics* 18 (2011): 71-78.

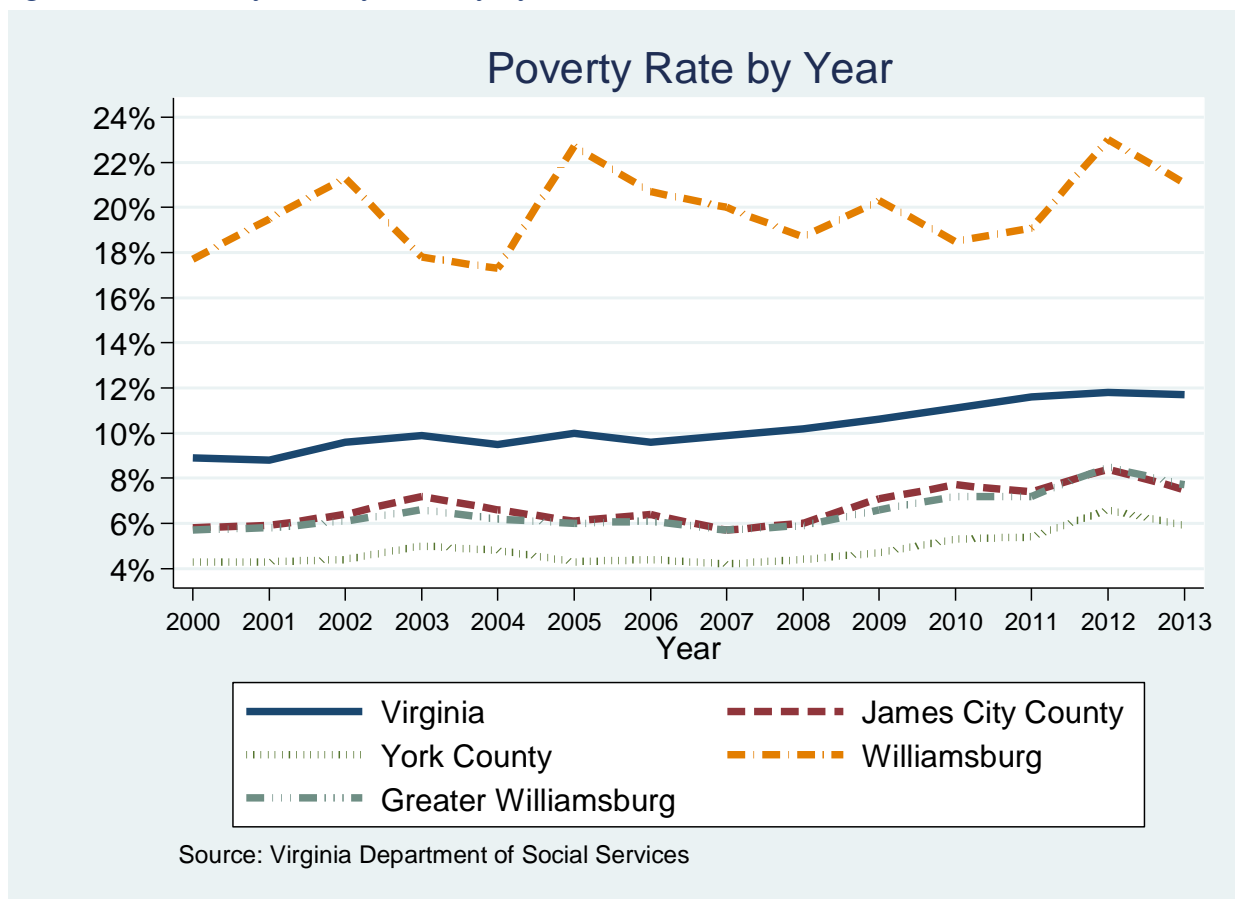
<sup>21</sup> Note: See Appendix 5 for a detailed look at the unemployment rate and number of unemployed persons by year

<sup>22</sup> Sources: Virginia Department of Social Services; U.S. Bureau of Labor Statistics

## Section 3.2: Poverty

As illustrated by Figure 3.2A, the poverty rate for Greater Williamsburg has increased gradually, rising from 5.7% in 2000 to 7.7% in 2013, suggesting that the poverty rate has been less responsive than unemployment to policies designed to promote economic growth and speed economic recovery. However, like the unemployment rate, the poverty rate in Williamsburg has been consistently higher than the poverty rate for Virginia, James City County, or York County. For instance, as of 2013, the poverty rate in Williamsburg was 21.1% compared to 11.7% for Virginia, 7.5% for James City County, and 5.9% for York County.<sup>23</sup> The high level of poverty in Williamsburg is troublesome, as many studies have demonstrated a strong association between poverty and poor health outcomes, such as chronic diseases, disability, and mental or behavioral health.<sup>24,25,26</sup>

Figure 3.2A: Poverty Rate by Locality by Year, 2000-2013



<sup>23</sup> Note: See Appendix 6 for a detailed look at the poverty rate and the number of people living in poverty by year

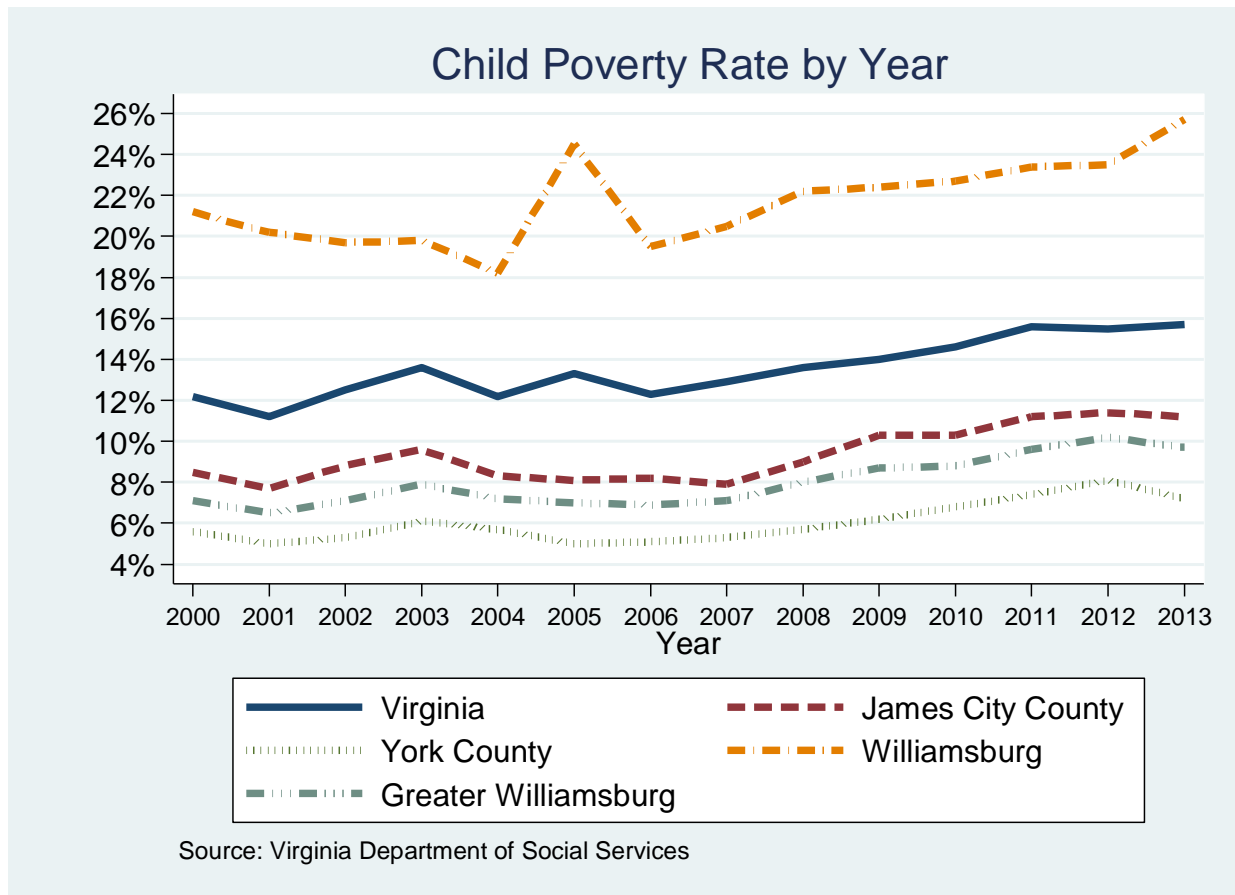
<sup>24</sup> Plantinga, Laura C., Kirsten L. Johansen, Dean Schillinger, and Neil R. Powe. "Lower Socioeconomic Status and Disability Among US Adults With Chronic Kidney Disease, 1999-2008." *Preventing Chronic Disease* 9 (2012): 1-11.

<sup>25</sup> Sabanayagam, Charumathi and Anoop Shankar. "Income Is a Stronger Predictor of Mortality than Education in a National Sample of US Adults." *Journal of Health, Population, and Nutrition* 1 (2012): 82-86.

<sup>26</sup> Yoshikawa, Hirokazu, J. Lawrence Aber, and William R. Beardslee. "The Effects of Poverty on the Mental, Emotional, and Behavioral Health of Children and Youth." *American Psychologist* 67, no. 4 (2012): 272-284.

As illustrated by Figure 3.2B, despite being lower than the child poverty rate for Virginia, the child poverty rate for Greater Williamsburg has also increased gradually, rising from 7.1% in 2000 to 9.7% in 2013. However, like above, the child poverty rate in the City of Williamsburg has been consistently higher than the child poverty rate for Virginia, James City County, or York County. For instance, as of 2013, the poverty rate in Williamsburg was 25.7% compared to 15.7% for Virginia, 11.2% for James City County, and 7.2% for York County.<sup>27</sup>

**Figure 3.2B: Child Poverty Rate by Locality by Year, 2000-2013**



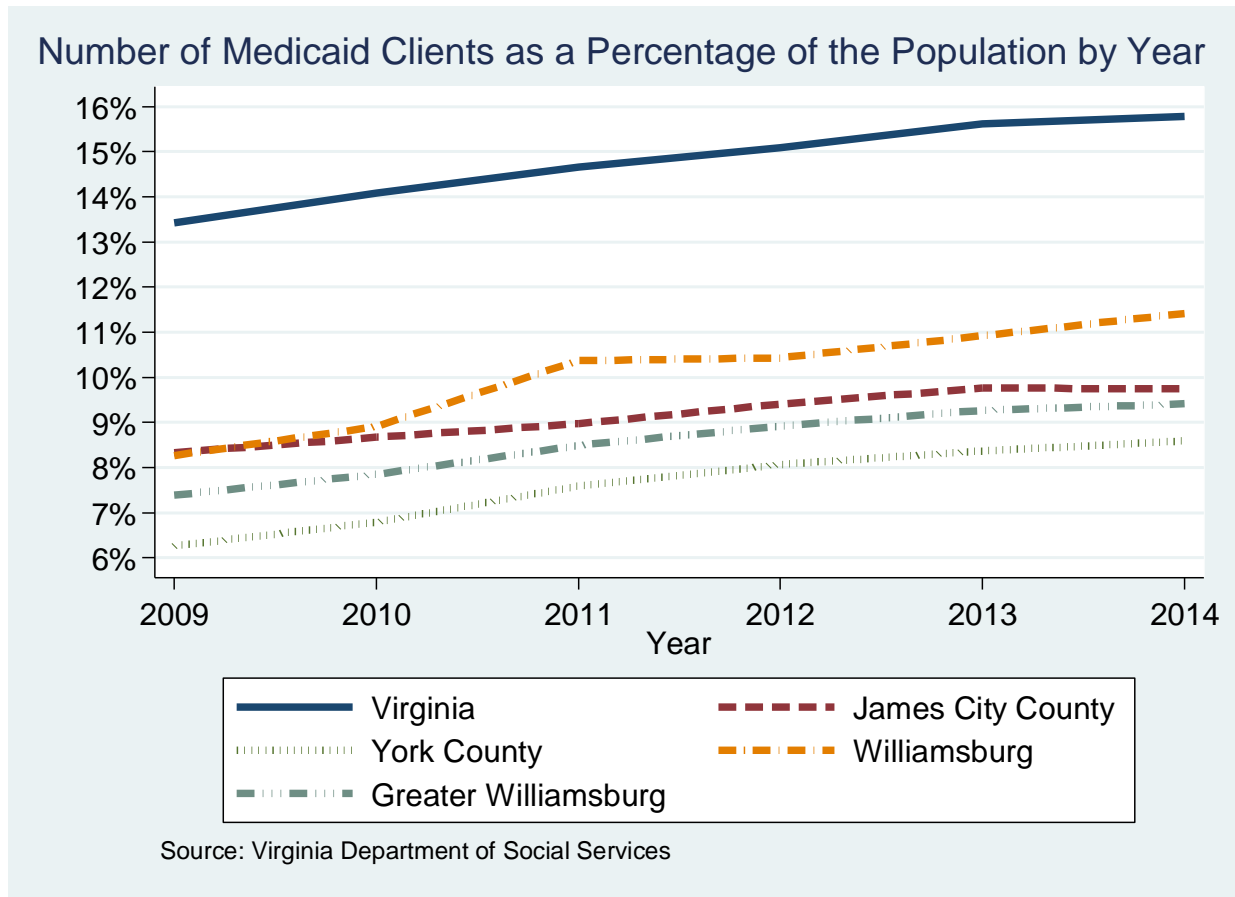
### Section 3.3: Medicaid Enrollment

As illustrated by Figure 3.3, the percent of the Greater Williamsburg population enrolled in Medicaid has increased substantially. From 2009 to 2014, the number of clients in Greater Williamsburg increased by 34.8% from 10,721 persons, or 7.4% of the population in 2009, to 14,455 persons, or 9.4% of the population by 2014. Of those 14,555 enrollees, 7,079 live in James City County, 5,698 live in York County, and 1,678 live in Williamsburg. In Williamsburg, 11.4% of the population was enrolled in Medicaid in 2014, compared to 9.8% for James City County, 8.1% for York County, and 15.8% for Virginia.<sup>28</sup> Overall, Greater Williamsburg has relatively lower rates of enrollment, but these rates can be expected to continue increasing with or without the expansion of Medicaid.

<sup>27</sup> Note: See Appendix 7 for a detailed look at the child poverty rate and the number of children living in poverty by year

<sup>28</sup> Note: See Appendix 8 for a detailed look at the number of Medicaid enrollees over time

**Figure 3.3: Medicaid Enrollees as a Percentage of the Population by Year, 2009-2014**



Approximately 59.2% of the Medicaid clients living in Greater Williamsburg were under age 18, 34.2% were between the ages of 18 and 64, and 6.5% were 65 or older. 58.3% of enrollees were female while 41.7% were male. 48.9% of the recipients were White or Caucasian, 34.3% were Black or African American, and the remaining 16.8% either identified as two or more races or a race other than White or Black. 28.8% were Hispanic or Latino regardless of race.

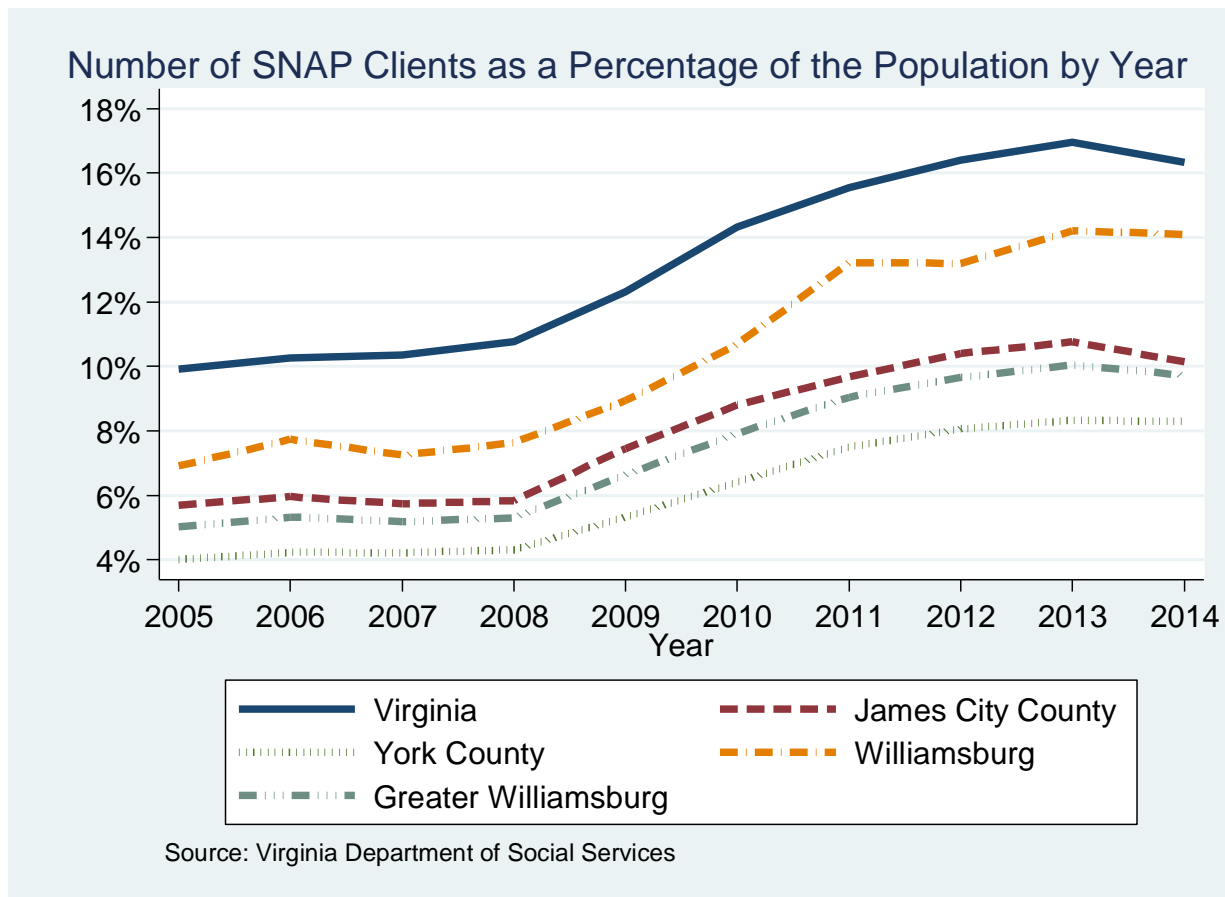
### Section 3.4: SNAP Enrollment<sup>29</sup>

As illustrated by Figure 3.4, the number of SNAP clients living in Greater Williamsburg has increased as a portion of the overall population over time before leveling off and declining in 2014. From 2005 to 2013, the number of SNAP clients in Greater Williamsburg increased from 6,719 persons, or 5.0% of the population, to 15,224 persons, or 10.0% of the population, before declining slightly to 14,941 persons, or 9.73% of the population, in 2014. Over the entire time period, the number of SNAP enrollees increased by 122.4% in Greater Williamsburg. Of the 14,941 current enrollees, 7,368 live in James City County, 5,501 live in York County, and 2,072 live in Williamsburg. 14.1% of the population of Williamsburg was enrolled in SNAP compared to 10.2% for James City County, 8.3% for York County, and 16.3% for Virginia.<sup>30</sup>

<sup>29</sup> Note: SNAP is an acronym for Supplemental Nutrition Assistance Program, a federal program designed to provide food assistance for low-income individuals and families

<sup>30</sup> Note: See Appendix 9 for a detailed look at the number of SNAP enrollees

**Figure 3.4: SNAP Enrollees as a Percentage of the Population by Year, 2005-2014**



Approximately 43.0% of the SNAP clients living in Greater Williamsburg were under age 18, 53.7% were between the ages of 18 and 64, and 3.3% were 65 or older. 57.6% of the enrollees were female while 42.4% were male. 46.9% of the recipients were White or Caucasian, 37.7% were Black or African American, and the remaining 15.4% identified either as two or more races or a race other than White or Black. 8.5% were Hispanic or Latino regardless of race.

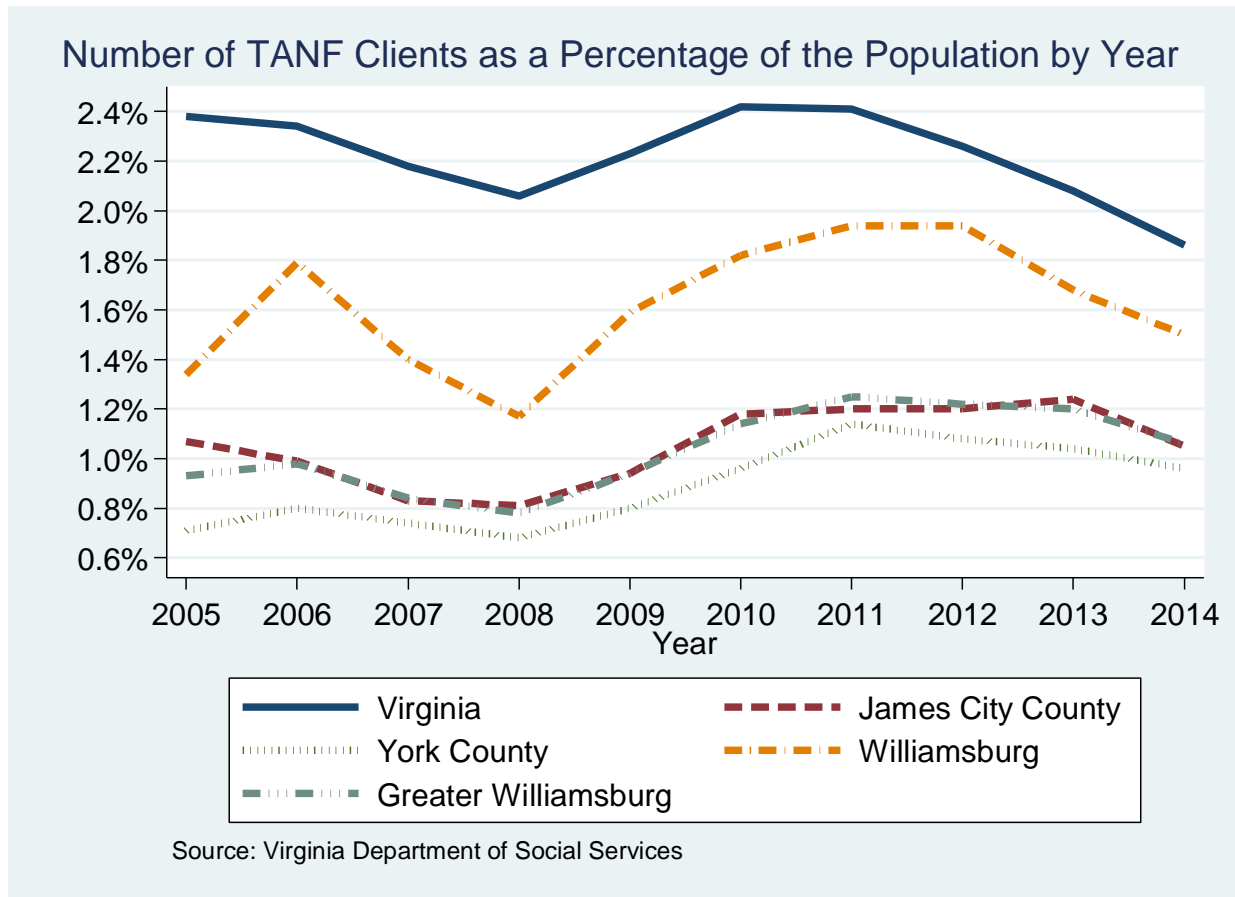
**Section 3.5: TANF Enrollment<sup>31</sup>**

The number of TANF recipients living in Greater Williamsburg has fluctuated and increased modestly over time. As illustrated by Figure 3.5, the number of TANF recipients living in Greater Williamsburg has increased by 30.8% from 1,240 persons in 2000, or 0.93% of the population, to 1,622 persons, or 1.06% of the population by 2013. Of those 1,622 enrollees, 763 lived in James City County, 639 lived in York County, and 220 lived in Williamsburg. 1.50% of the population of Williamsburg was enrolled in TANF, compared to 1.05% for James City County, 0.96% for York County, and 1.86% for Virginia.<sup>32</sup>

<sup>31</sup> Note: TANF is an acronym for Temporary Assistance to Needy Families, a federal program administered by the states through block grants that is designed to provide income support for families with dependent children

<sup>32</sup> Note: See Appendix 10 for a detailed look at the number of TANF enrollees over time

**Figure 3.5: TANF Enrollees as a Percentage of the Population by Year, 2005-2014**



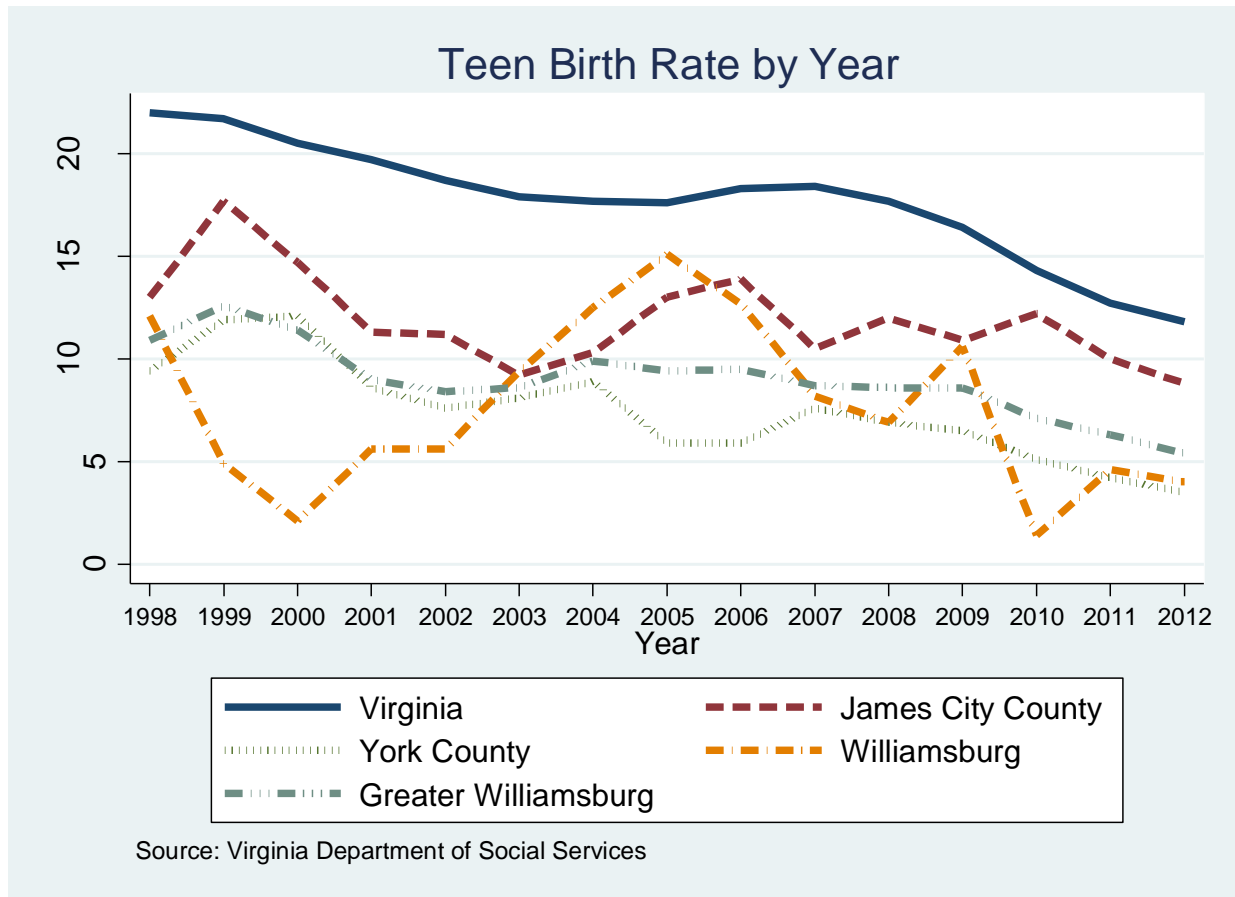
Approximately 62.5% of the TANF clients living in Greater Williamsburg were under age 18, 37.5% were between the ages of 18 and 64, and 0.0% were 65 or older. 63.1% of the enrollees were female while 36.9% were male. 39.3% of the recipients were White or Caucasian, 47.0% were Black or African American, and the remaining 13.7% either identified as two or more races or a race other than White or Black. 7.3% were Hispanic or Latino regardless of race.

### Section 3.6: Teen Pregnancy

As illustrated by Figure 3.6, the number of teen births per year fell dramatically in Greater Williamsburg from 1998 to 2012, most likely due to increased availability of contraception and more effective sexual education. The teen birth rate (the number of teen births per 1,000 women between the ages of 15 and 19) fell from 10.9 in 1998 to 5.4 in 2012. Likewise, the number of teen births per year decreased from 99 in 1998 to 62 in 2012 despite the increased population. Overall, the teen birth rate of Greater Williamsburg is well below the state average of 11.8. However, the teen birth rate varies within the Greater Williamsburg area. As of 2012, the teen birth rate was 8.8 in James City County, 4.0 in the City of Williamsburg, and 3.5 in York County.<sup>33</sup>

<sup>33</sup> Note: See Appendix 11 for a detailed look at the number of teen births over time

**Figure 3.6: Teen Birth Rate by Year, 1998-2012**



As illustrated by Table 3.6, the teen birth rate also varies by race. In particular, the teen birth rate for non-whites is higher than for whites. As of 2012, the teen birth rate for whites in Greater Williamsburg was 3.9 births per 1,000 women between the ages of 15 and 19 compared to 11.9 for African Americans and 9.8 for those belonging to a race other than White or Black. Racial disparities in teen births are most prevalent in James City County, where the teen birth rate for Whites is 4.3 compared to 22.3 for Blacks and 36.1 for those belonging to a race other than Black or White.

**Table 3.6: Teen Birth Rate by Race (2012)**

Race	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
Total	11.8	8.8	3.5	4.0	5.4
White	9.4	4.3	3.5	4.4	3.9
Black	17.9	22.3	5.5	0.0	11.9
Other	14.9	36.1	0.0	7.8	9.8

Source: Virginia Department of Social Services



The recent decline in teen birth rates is significant from a health policy perspective because teen mothers tend to have lower family incomes, are more likely to receive public assistance, are less educated, are less likely to be married, and their children lag in standards of early development.<sup>34</sup> In turn, the children of teen mothers are at higher risk of experiencing worse educational, behavioral, and health outcomes over the course of their lives than other children.<sup>35</sup>

### Section 3.7: Children in Single Parent Households

As illustrated by Table 3.7A, 13,280 children live in a married couple household compared to 4,526 who live in a single parent household.<sup>36</sup> Of those 4,526 children who live in a single parent household, 1,825 live in James City County, 2,393 live in York County, and 308 live in Williamsburg. Likewise, 820 children live in father only households while 3,706 live in mother only households.

**Table 3.7A: Number of Children by Type of Household (2009-2013 Five Year Estimates)**

Type of Household	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
Married-Couple	638,675	4,890	7,954	436	13,280
Single Parent	264,406	1,825	2,393	308	4,526
Father Only	59,973	324	420	76	820
Mother Only	204,433	1,501	1,973	232	3,706

Source: Virginia Department of Social Services

As illustrated by Table 3.7B, 75% of children in Greater Williamsburg live in married couple households. A higher percent of children in Greater Williamsburg live in married couple households compared to Virginia. However, children living in the City of Williamsburg were 18 percentage points more likely to live in a single-parent household than those living in York County, 14 percentage points more likely than those living in James City County, and 12 percentage points more than Virginia. Alongside the data on unemployment, poverty, and utilization of public assistance, this finding supports the idea that the health and human services needs of the City of Williamsburg are greater than and distinct from the needs of Greater Williamsburg as a whole.

**Table 3.7B: Percent of Children by Type of Household (2009-2013 Five Year Estimates)**

Type of Household	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
Married Couple	71%	73%	77%	59%	75%
Single Parent	29%	27%	23%	41%	25%
Father Only	7%	5%	4%	10%	5%
Mother Only	23%	22%	19%	31%	21%

Source: Virginia Department of Social Services

<sup>34</sup> "Pregnancy and Childbearing Among U.S. Teens." *Planned Parenthood Federation of America*.

[http://www.plannedparenthood.org/files/2013/9611/7570/Pregnancy\\_And\\_Childbearing\\_Among\\_US\\_Teens.pdf](http://www.plannedparenthood.org/files/2013/9611/7570/Pregnancy_And_Childbearing_Among_US_Teens.pdf)

<sup>35</sup> "Teen Pregnancy and Childbearing." U.S. Department of Health and Human Services Office of Adolescent Health.

<http://www.hhs.gov/ash/oah/adolescent-health-topics/reproductive-health/teen-pregnancy/>

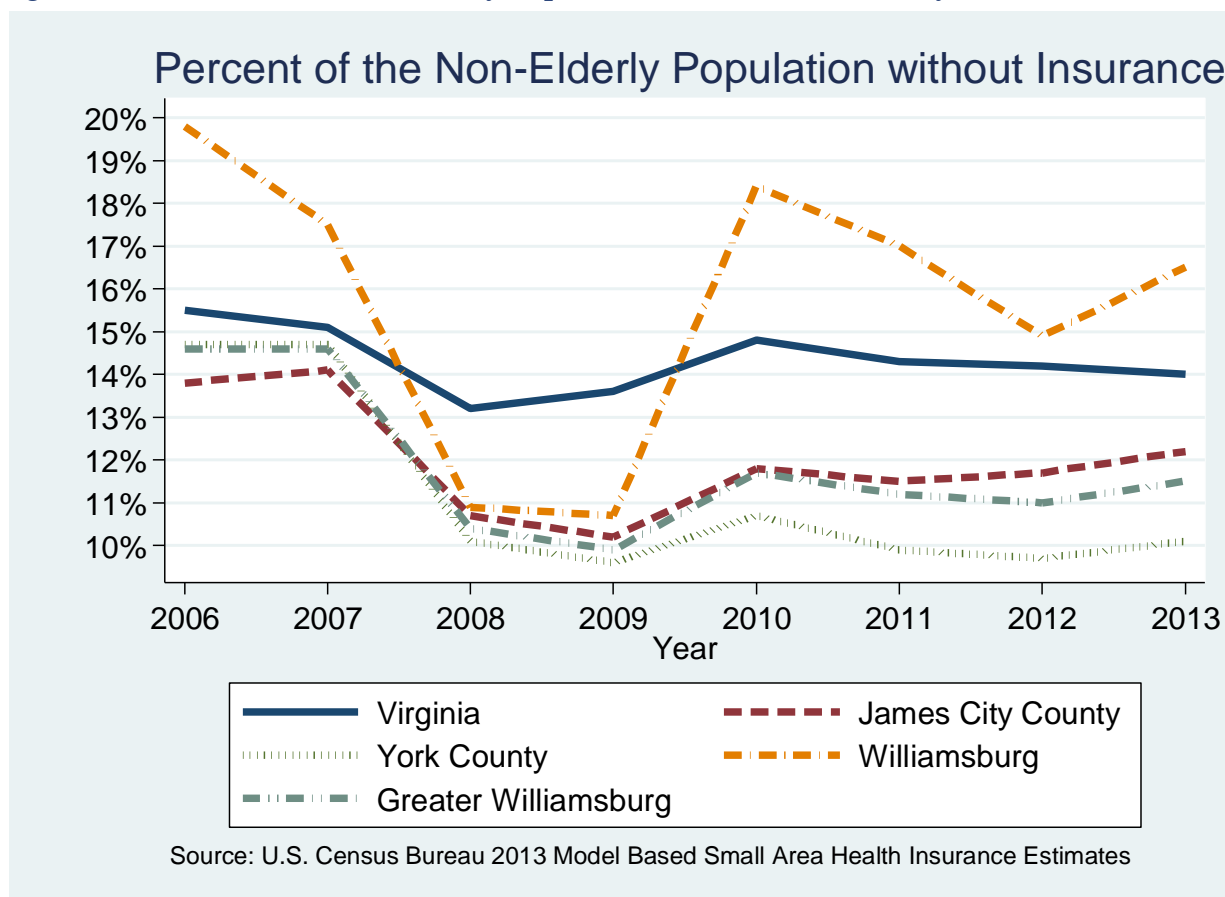
<sup>36</sup> Note: Data do not distinguish an unmarried two-parent household from a single parent household

### Section 3.8: Medicaid Expansion and the Uninsured

As illustrated by Figure 3.8, the percent of non-elderly people without insurance has declined modestly since 2006, due at least in part to the implementation of the Patient Protection and Affordable Care Act. According to estimates produced by the U.S. Census Bureau, the percent of the non-elderly population without insurance decreased from 14.6% in 2006 to 11.5% by 2013. Likewise, the number of non-elderly people without insurance has decreased modestly, from 15,865 in 2006 to 13,609 by 2013. Of that group, 6,532 people live in James City County, 5,641 live in York County, and 1,436 live in Williamsburg. Across the time period, a lower percent of non-elderly people were uninsured in Greater Williamsburg compared to Virginia. Simultaneously, however, a higher percent of non-elderly people were uninsured in the City of Williamsburg compared to James City County, York County, or Virginia. For instance, in 2013, 16.5% of the non-elderly population of the City of Williamsburg was uninsured compared to 14.0% for Virginia, 12.2% for James City County, and 10.1% for York County.

However, despite the long-term reduction in the percent of non-elderly people who do not have insurance, estimates of the number of non-elderly people without insurance actually increased from 2012 to 2013 (the U.S. Census Bureau estimates there to have been only 12,941 uninsured non-elderly people in 2012 compared to 13,609 in 2013).

**Figure 3.8: Percent of the Non-Elderly Population without Insurance by Year, 2006-2013**



Over half of the uninsured people living in Greater Williamsburg are already eligible for some type of health care assistance, be it subsidies through the federal exchange, Medicaid, CHIP,<sup>37</sup> or FAMIS.<sup>38</sup> As of 2013 in Greater Williamsburg, 6,490 uninsured non-elderly individuals lived in households with incomes greater than 138% of the Federal Poverty Level (FPL) but less than 400%, making them eligible for subsidies through the Health Insurance Marketplace at *Healthcare.gov*. Likewise, 1,053 uninsured individuals under age 19 lived in households with incomes less than 200% of the FPL, making them eligible for Medicaid, CHIP, or FAMIS (depending on their age and household income). Thus, in total, 7,543 uninsured adults and children, or 55.4% of the uninsured population, are already eligible to enroll in some type of assistance.

If Virginia were to expand Medicaid, coverage would be extended to include all people living in households with household incomes less than 138% of the FPL. In that case, as of 2013 in Greater Williamsburg, 4,095 uninsured people between the ages of 18 and 64 lived in households with incomes below 138% of the FPL, making them eligible for Medicaid under the new eligibility standards set by the PPACA for states that decide to expand Medicaid. Thus, if Virginia Medicaid were expanded and everyone who was eligible for some type of assistance enrolled, the number of uninsured people would decline by 11,638, or 85.5%.

However, it is very unlikely that all of the newly eligible uninsured people would enroll in Medicaid, at least at first. The number of enrollees would depend on the take-up (enrollment) rate. According to the U.S. Department of Health and Human Services, recent estimates of the take-up rate vary from 57 percent to 82 percent.<sup>39</sup> As a result, of the 4,095 uninsured people who would become eligible for Medicaid, one could expect between 2,334 and 3,358 people to enroll.

### **Section 3.9: Safety-Net Clinics and the Uninsured**

Three safety-net clinics operate in Greater Williamsburg provide an invaluable service to the underserved and uninsured population: Olde Towne Medical Center, Lackey Free Clinic, and Angels of Mercy Free Clinic. Together, the clinics see approximately 4,500 unique uninsured patients, or 32.7% of the uninsured population. Yet, despite the exceptional effort that these clinics put into helping meet the health needs of the vulnerable, approximately two in three uninsured people appear not to be getting regular health care. If or when they do receive care, it is likely in the form of uncompensated emergency room visits.

### **Section 4: The Path Forward**

Although seizing the difficult opportunities to improve citizen health and well-being and overcoming the health challenges faced by the vulnerable may seem daunting, the Williamsburg Health Foundation has designed this report to help guide the conversation. Through the creation of targeted community dialogue and collaboration, we believe that this report will act as a springboard for change and innovation.

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<sup>37</sup> CHIP is an acronym of Children's Health Insurance Program, a program related to Medicaid which is designed to provide coverage for low-income children

<sup>38</sup> FAMIS is an acronym for Family Access to Medical Insurance Security, a low-cost health insurance program for children whose families earn too much to qualify for Medicaid or CHIP but do not have private health insurance.

<sup>39</sup> "Understanding Participation Rates in Medicaid: Implications for the Affordable Care Act," Department of Health and Human Services, Assistant Secretary for Planning and Evaluation, accessed March 30, 2015, <http://aspe.hhs.gov/health/reports/2012/medicaidtakeup/ib.pdf>, 9.

## Bibliography

- The Dartmouth Atlas of Healthcare. "Downloads."  
<http://www.dartmouthatlas.org/tools/downloads.aspx>
- "Guide to Prevention Quality Indicators," *Department of Health and Human Services Agency for Healthcare Research and Quality*, October, 2001. Accessed August 7, 2015 at  
<http://www.ahrq.gov/downloads/pub/ahrqqi/pqiguide.pdf>
- King, Dana E., Eric Matheson, Svetlana Chirina, Anoop Shankar, and Jordan Broman-Fulks. "The Status of Baby Boomers' Health in the United States: The Healthiest Generation?" *JAMA Internal Medicine* 173, no. 5 (2013): 385-386.
- Knox, Richard. "\$1,000 Pill For Hepatitis C Spurs Debate Over Drug Prices," *National Public Radio*, December 30, 2013. <http://www.npr.org/sections/health-shots/2013/12/30/256885858/-1-000-pill-for-hepatitis-c-spurs-debate-over-drug-prices>
- Mangen, Dan, "Cholesterol drug cost worries linger even after spending report," *CNBC*, August 6, 2015. <http://www.cnbc.com/2015/08/06/cholesterol-drug-cost-worries-linger-even-after-spending-report.html>
- "Mental Health Conditions," *National Alliance on Mental Illness*. Accessed August 7, 2015 at  
<https://www.nami.org/Learn-More/Mental-Health-Conditions>
- "Nearly Half of Americans With Severe Mental Illness Do Not Seek Treatment," *Cardiovascular News*. Accessed August 7, 2015 at  
<http://circ.ahajournals.org/content/101/5/e66.full.pdf+html>
- Plantinga, Laura C., Kirsten L. Johansen, Dean Schillinger, and Neil R. Powe. "Lower Socioeconomic Status and Disability Among US Adults With Chronic Kidney Disease, 1999-2008." *Preventing Chronic Disease* 9 (2012): 1-11.
- Sabanayagam, Charumathi and Anoop Shankar. "Income Is a Stronger Predictor of Mortality than Education in a National Sample of US Adults." *Journal of Health, Population, and Nutrition* 1 (2012): 82-86.
- Schmitz, Hendrik. "Why Are The Unemployed in Worse Health? The Causal Effect Of Unemployment on Health." *Labor Economics* 18 (2011): 71-78.
- "The Power of Prevention," *National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention* (2009).  
<http://www.cdc.gov/chronicdisease/pdf/2009-Power-of-Prevention.pdf>
- "Understanding Participation Rates in Medicaid: Implications for the Affordable Care Act," Department of Health and Human Services, Assistant Secretary for Planning and Evaluation, accessed March 30, 2015,  
<http://aspe.hhs.gov/health/reports/2012/medicaidtakeup/ib.pdf>, 9.
- United States Census Bureau . "Annual Estimates of the Resident Population by Sex, Race, and Hispanic Origin for the United States, States, and Counties: April 1, 2010 to July 1, 2014."  
<http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>

- United States Census Bureau. "Estimates of the Components of Resident Population Change by Race and Hispanic Origin for the United States, Virginia, James City County, Williamsburg, and York County."  
[http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP\\_2014\\_PEPCCOMP&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2014_PEPCCOMP&prodType=table)
- United States Census Bureau . "Intercensal Estimates of the Resident Population for Counties: April 1, 2000 to July 1, 2010."  
<https://www.census.gov/popest/data/intercensal/county/county2010.html>
- United States Census Bureau. "Model-based Small Area Health Insurance Estimates (SAHIE) for Counties and States, 2013."  
<http://www.census.gov/did/www/sahie/data/20082013/index.html>
- United States Census Bureau, State and County Quick Facts. "USA Quick Facts."  
<http://quickfacts.census.gov/qfd/states/00000.html>
- Weldon Cooper Center for Public Service. "Components of Population Change for Virginia and its Counties and Cities" <http://www.coopercenter.org/demographics/population-data>
- Weldon Cooper Center for Public Service, Virginia Population Projections, "Locality Total Population" <http://www.coopercenter.org/demographics/virginia-population-projections>
- Weldon Cooper Center for Public Service, Virginia Population Projections. "Population Projections by Age and Sex for Virginia and its Localities."  
<http://www.coopercenter.org/demographics/virginia-population-projections>
- Virginia Department of Social Services. "Local Departments of Social Services Profile, SFY 2014." [http://www.dss.virginia.gov/geninfo/reports/agency\\_wide/ldss\\_profile.cgi](http://www.dss.virginia.gov/geninfo/reports/agency_wide/ldss_profile.cgi)
- Yoshikawa, Hirokazu, J. Lawrence Aber, and William R. Beardslee. "The Effects of Poverty on the Mental, Emotional, and Behavioral Health of Children and Youth." *American Psychologist* 67, no. 4 (2012): 272-284.

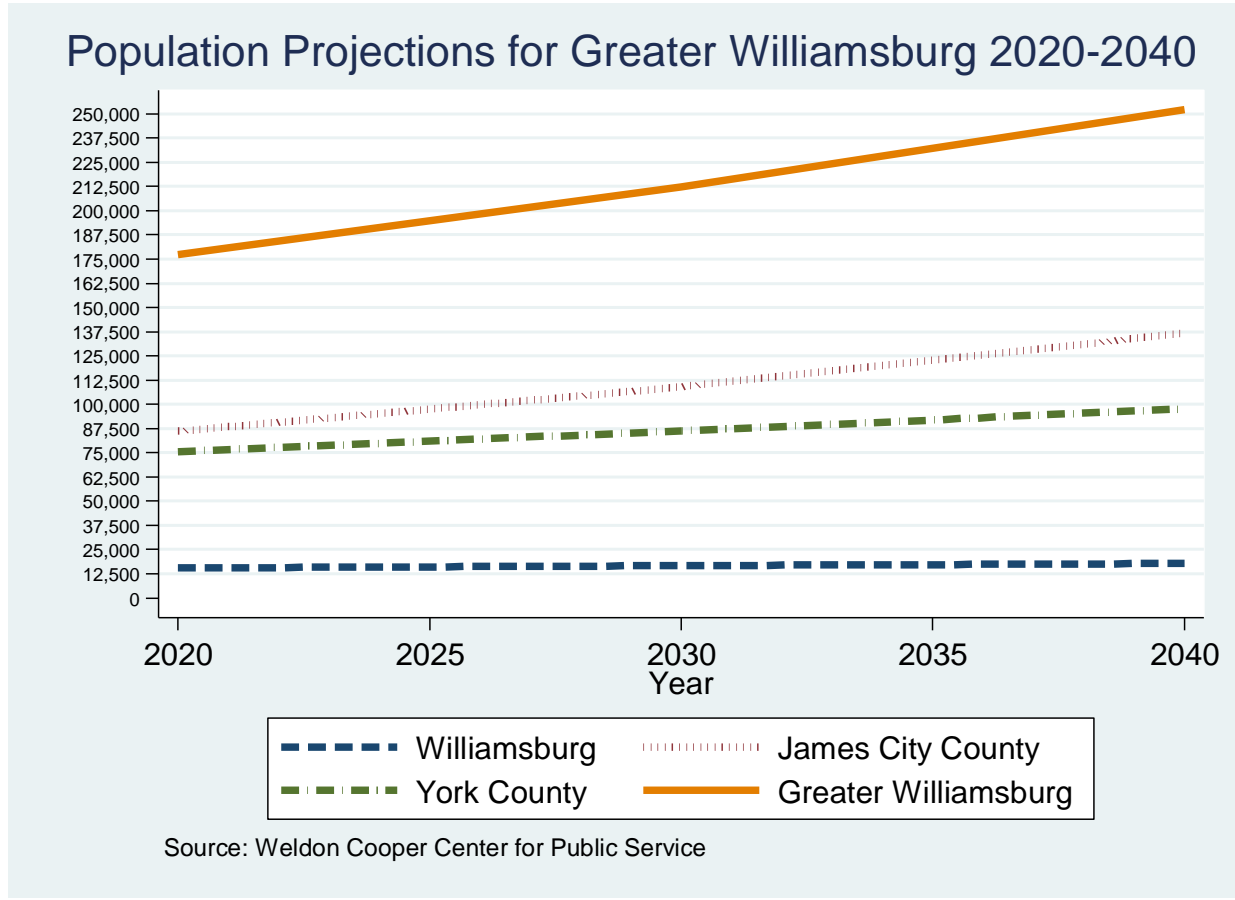
## Appendix 1

**Table 1: Population by Year for Greater Williamsburg and Virginia, 2000-2014**

Year	Virginia	Williamsburg	James City County	York County	Greater Williamsburg
2000	7,105,817	12,012	48,536	57,119	117,667
2001	7,198,362	12,024	49,786	58,651	120,461
2002	7,286,873	11,829	51,722	60,126	123,677
2003	7,366,977	11,796	53,734	60,620	126,150
2004	7,475,575	11,986	56,182	61,926	130,094
2005	7,577,105	12,400	58,428	63,076	133,904
2006	7,673,725	12,810	61,133	63,912	137,855
2007	7,751,000	13,142	63,007	64,710	140,859
2008	7,833,496	13,296	64,436	64,944	142,676
2009	7,925,937	13,687	66,118	65,197	145,002
2010	8,025,376	14,170	67,237	65,467	146,874
2011	8,110,188	14,262	68,329	65,810	148,401
2012	8,193,422	14,617	69,532	65,746	149,895
2013	8,270,345	14,745	70,964	65,944	151,653
2014	8,326,289	14,691	72,583	66,342	153,616

Source: U.S. Census Bureau, 2014 ACS Estimates

**Figure 1: Population Projections for Greater Williamsburg by Year, 2020-2040**

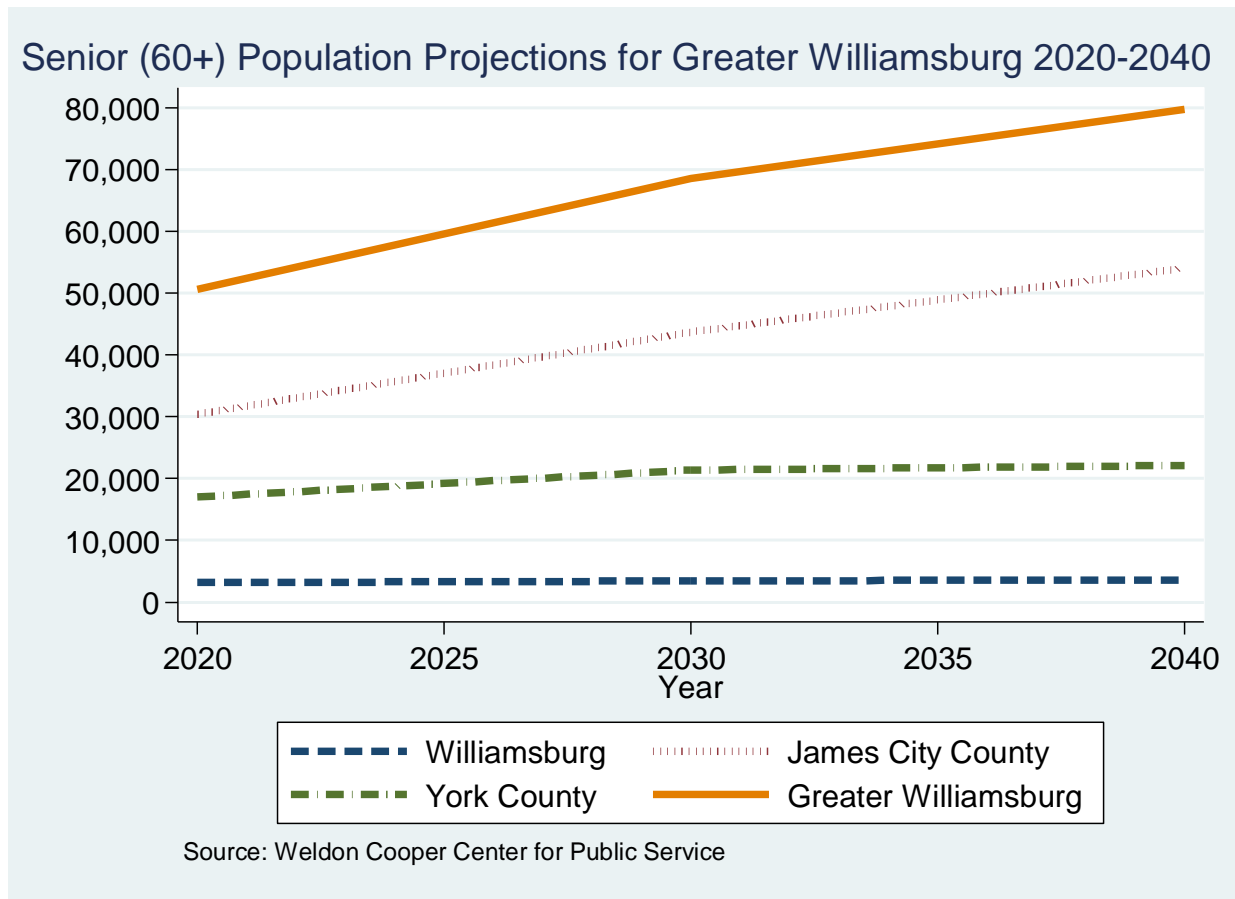


Year	Williamsburg	James City County	York County	Greater Williamsburg
2020	15,510	86,142	75,590	177,242
2030	16,729	109,030	86,321	212,080
2040	17,820	136,736	97,627	252,183

Source: Weldon Cooper Center for Public Service

## Appendix 2

**Figure 2: Population Projections for the Number of Seniors in Greater Williamsburg by Year, 2020-2040**



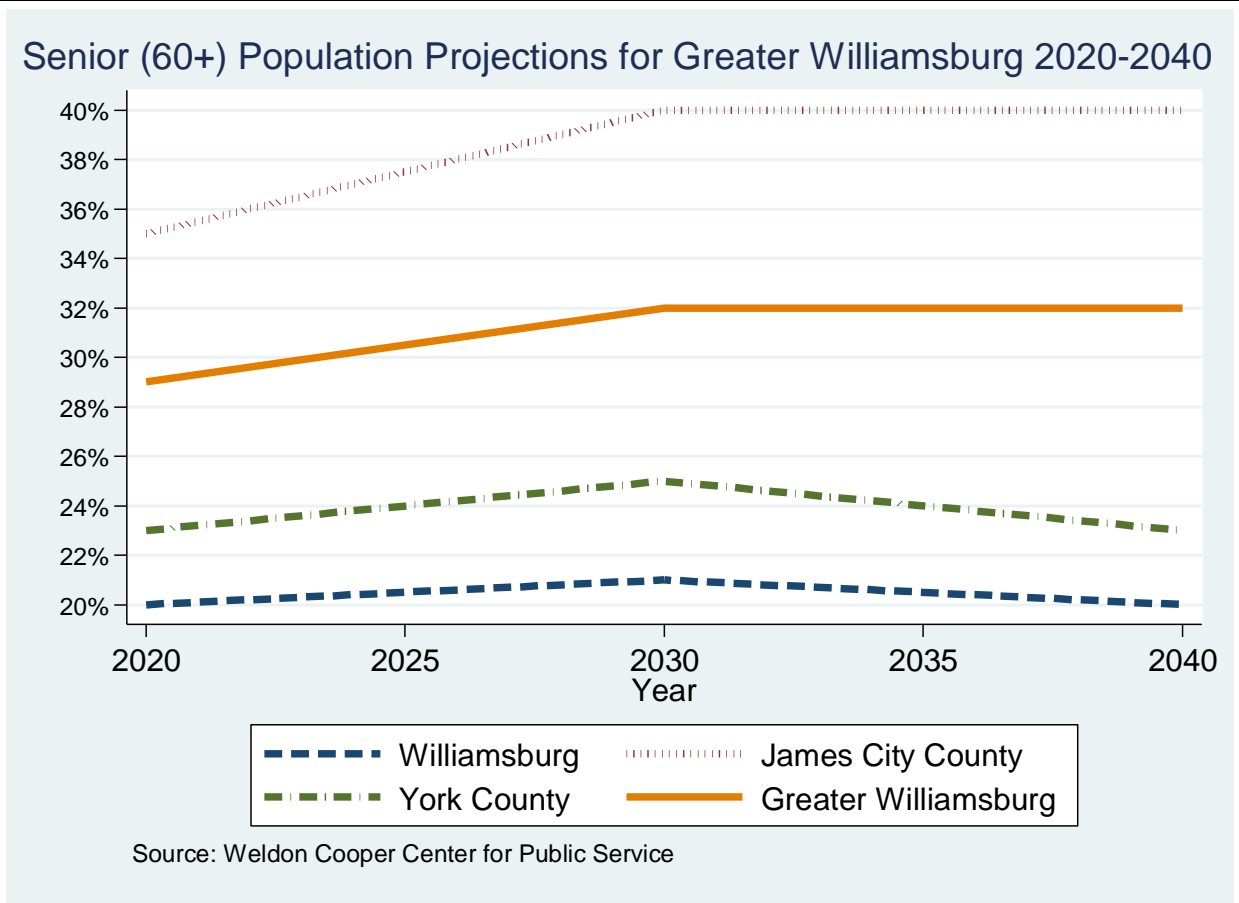
Year	Williamsburg	James City County	York County	Greater Williamsburg
2020	3,143	30,401	17,014	50,558
2030	3,440	43,699	21,378	68,517
2040	3,580	54,049	22,115	79,744

Source: Weldon Cooper Center for Public Service

Note: Weldon Cooper defines seniors as the population over age 60



**Figure 3: Population Projections for the Seniors as a Percent of the Population in Greater Williamsburg by Year, 2020-2040**



Year	Williamsburg	James City County	York County	Greater Williamsburg
2020	20%	35%	23%	29%
2030	21%	40%	25%	32%
2040	20%	40%	23%	32%

Source: Weldon Cooper Center for Public Service

Note: Weldon Cooper defines seniors as the population over age 60

## Appendix 3

**Table 2: Percent of the Total Population by Cohort (2013)**

Cohort	United States	Virginia	Williamsburg	James City County	York County	Greater Williamsburg
< 5	6.28%	6.20%	3.14%	5.10%	5.39%	5.03%
< 18	23.28%	22.57%	10.63%	21.06%	24.35%	21.45%
5 to 13	11.73%	11.37%	5.41%	10.64%	12.66%	11.00%
14 to 17	5.27%	5.00%	2.08%	5.32%	6.31%	5.43%
15 to 44	40.25%	41.02%	58.81%	32.61%	37.79%	37.49%
> 16	79.36%	79.93%	90.31%	81.53%	78.84%	81.24%
> 18	76.72%	77.43%	89.37%	78.94%	75.65%	78.55%
18 to 64	62.58%	64.05%	74.23%	56.51%	61.63%	60.52%
18 to 24	9.95%	10.04%	36.45%	7.54%	9.51%	11.29%
25 to 44	26.35%	27.24%	20.94%	21.16%	23.55%	22.18%
45 to 64	26.28%	26.77%	16.85%	27.81%	28.57%	27.05%
> 65	14.14%	13.38%	15.14%	22.43%	14.01%	18.03%
> 85	1.91%	1.64%	1.73%	2.80%	1.44%	2.10%

Source: U.S. Census Bureau, 2013 ACS Estimates

**Table 3: Numerical Population by Cohort (2013)**

Cohort	United States	Virginia	Williamsburg	James City County	York County	Greater Williamsburg
< 5	19,868,088	512,115	478	3,594	3,572	7,644
< 18	73,585,872	1,864,535	1,616	14,848	16,139	32,603
5 to 13	37,073,596	939,240	822	7,503	8,388	16,713
14 to 17	16,644,188	413,180	316	3,751	4,179	8,246
15 to 44	127,251,679	3,388,782	8,943	22,995	25,043	56,981
> 16	242,542,967	6,395,870	13,590	55,668	50,130	119,388
> 18	197,838,893	5,290,489	11,288	39,850	40,844	91,982
18 to 64	31,457,653	829,207	5,542	5,316	6,301	17,159
18 to 24	83,297,277	2,250,079	3,184	14,921	15,608	33,713
25 to 44	83,083,963	2,211,203	2,562	19,613	18,935	41,110
45 to 64	44,704,074	1,105,381	2,302	15,818	9,286	27,406
> 65	6,040,789	135,747	263	1,975	952	3,190
> 85	250,892,271	6,602,567	13,732	57,494	52,244	123,470

Source: U.S. Census Bureau, 2013 ACS Estimates

## Appendix 4

**Table 4: Selected Measures of Primary Care Access by Race (2012)**

Measure		James City County	York County	Williamsburg
Number of Medicare beneficiaries (Part B eligible)	Overall	7760	5609	7540
	Black	623	533	601
	White	7137	5076	6939
Average annual percent of Medicare enrollees having at least one ambulatory visit to a primary care clinician	Overall	88.49	81.48	86.70
	Black	82.68	75.88	83.33
	White	88.97	81.93	86.97
Number of diabetic Medicare enrollees age 65-75	Overall	834	673	598
	Black	142	109	113
	White	692	564	485
Average annual percent of diabetic Medicare enrollees age 65-75 having hemoglobin A1c test	Overall	89.21	84.84	85.12
	Black	83.10	77.06	76.99
	White	90.46	86.35	87.01
Average annual percent of diabetic Medicare enrollees age 65-75 having eye examination	Overall	80.70	81.87	79.43
	Black	72.54	78.90	71.68
	White	82.37	82.45	81.24
Average annual percent of diabetic Medicare enrollees age 65-75 having blood lipids (LDL-C) test	Overall	84.77	82.02	84.62
	Black	78.87	72.48	76.11
	White	85.98	83.87	86.60
Number of female Medicare enrollees age 67-69	Overall	725	550	622
	Black	57	49	51
	White	668	501	571
Average percent of female Medicare enrollees age 67-69 having at least one mammogram over a two-year period	Overall	76.28	74.00	73.31
	Black	75.44	69.39	50.98
	White	76.35	74.45	75.31
Number of Medicare beneficiaries (Part A eligible)	Overall	8262	6065	8154
	Black	668	574	640
	White	7594	5491	7514
Discharges for ambulatory care sensitive conditions per 1,000 Medicare enrollees	Overall	41.12	41.68	39.84
	Black	75.07	44.03	89.30
	White	38.07	41.81	35.59

Source: Dartmouth Atlas of Health Care

## Appendix 5

**Table 5: Unemployment Rate by Year, 2000-2014**

Year	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
2000	2.3%	2.0%	1.9%	4.3%	2.1%
2001	3.2%	2.5%	2.5%	5.7%	2.7%
2002	5.9%	5.6%	5.4%	8.9%	3.4%
2003	4.1%	3.3%	3.2%	8.0%	3.6%
2004	3.7%	3.3%	3.0%	7.5%	3.4%
2005	3.5%	3.1%	3.0%	7.1%	3.3%
2006	3.0%	2.6%	2.6%	5.9%	2.8%
2007	3.1%	2.5%	2.5%	5.6%	2.7%
2008	4.0%	3.2%	3.3%	8.6%	3.6%
2009	7.0%	5.6%	5.5%	15.3%	6.3%
2010	7.1%	6.3%	5.9%	10.2%	6.4%
2011	6.4%	6.0%	5.9%	9.8%	6.2%
2012	5.9%	5.6%	5.4%	8.9%	5.8%
2013	5.5%	5.2%	5.1%	8.3%	5.4%
2014	5.2%	5.0%	5.0%	7.1%	5.2%

Source: Virginia Department of Social Services; ; U.S. Bureau of Labor Statistics

Note: The unemployment rate is defined as the percent of the non-institutionalized civilian labor force that is not employed but actively seeking employment. The labor force is composed of anyone who has a job or is seeking a job, is at least 16 years old, is not serving in the military, and is not institutionalized. Although the unemployment rate is considerably higher for Williamsburg than James City County or York County, there are far fewer unemployed individuals in Williamsburg due to its smaller population.

**Table 6: Number of Individuals Unemployed by Year, 2000-2014**

Year	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
2000	81,517	453	623	198	1,274
2001	117,659	611	828	264	1,703
2002	156,565	837	1,056	336	2,229
2003	155,730	880	1,124	371	2,375
2004	142,681	919	1,080	350	2,349
2005	137,985	902	1,100	343	2,345
2006	121,209	800	973	282	2,055
2007	123,075	774	915	287	1,976
2008	163,597	1,031	1,230	459	2,720
2009	287,049	1,797	2,014	856	4,667
2010	293,866	2,153	2,326	595	5,074
2011	271,168	2,102	2,373	589	5,064
2012	248,066	1,964	2,156	554	4,674
2013	235,134	1,847	2,024	518	4,389

Source: Virginia Department of Social Services

## Appendix 6

**Table 7: Percent of Population Living in Poverty by Year, 2000-2013**

Year	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
2000	8.9%	5.8%	4.3%	17.7%	5.7%
2001	8.8%	5.9%	4.3%	19.5%	5.8%
2002	9.6%	6.4%	4.4%	21.3%	6.1%
2003	9.9%	7.2%	5.0%	17.8%	6.6%
2004	9.5%	6.6%	4.8%	17.3%	6.2%
2005	10.0%	6.1%	4.3%	22.7%	6.0%
2006	9.6%	6.4%	4.4%	20.7%	6.1%
2007	9.9%	5.7%	4.2%	20.0%	5.7%
2008	10.2%	6.0%	4.4%	18.7%	5.9%
2009	10.6%	7.1%	4.7%	20.3%	6.6%
2010	11.1%	7.7%	5.3%	18.5%	7.2%
2011	11.6%	7.4%	5.4%	19.1%	7.2%
2012	11.8%	8.4%	6.6%	23.0%	8.5%
2013	11.7%	7.5%	5.9%	21.1%	7.7%

Source: Virginia Department of Social Services

**Table 8: Number of Individuals Living in Poverty by Year, 2000-2013**

Year	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
2000	620,936	2,805	2,965	1,312	7,082
2001	620,238	2,962	3,035	1,402	7,399
2002	692,133	3,406	3,230	1,518	8,154
2003	724,326	3,922	3,589	1,244	8,755
2004	705,038	3,780	3,510	1,266	8,556
2005	728,860	3,445	3,102	1,643	8,190
2006	713,179	3,771	3,228	1,509	8,508
2007	739,139	3,440	3,067	1,570	8,077
2008	766,854	3,706	3,172	1,474	8,352
2009	805,553	4,449	3,402	1,645	9,496
2010	865,746	5,067	4,058	1,850	10,975
2011	912,779	4,991	4,192	1,962	11,145
2012	936,384	5,730	5,134	2,500	13,364
2013	941,059	5,240	4,598	2,305	12,143

Source: Virginia Department of Social Services

## Appendix 7

**Table 9: Percent of Children under Age 18 Living in Poverty by Year, 2000-2013**

Year	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
2000	12.20%	8.50%	5.60%	21.20%	7.10%
2001	11.20%	7.70%	5.00%	20.20%	6.50%
2002	12.50%	8.80%	5.30%	19.70%	7.10%
2003	13.60%	9.60%	6.10%	19.80%	7.90%
2004	12.20%	8.30%	5.70%	18.20%	7.20%
2005	13.30%	8.10%	5.00%	24.50%	7.00%
2006	12.30%	8.20%	5.10%	19.50%	6.90%
2007	12.90%	7.90%	5.30%	20.50%	7.10%
2008	13.60%	9.00%	5.70%	22.20%	8.00%
2009	14.00%	10.30%	6.20%	22.40%	8.70%
2010	14.60%	10.30%	6.80%	22.70%	8.80%
2011	15.60%	11.20%	7.40%	23.40%	9.60%
2012	15.50%	11.40%	8.10%	23.50%	10.20%
2013	15.70%	11.20%	7.20%	25.70%	9.70%

Source: Virginia Department of Social Services

**Table 10: Number of Children under Age 18 Living in Poverty by Year, 2000-2013**

Year	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
2000	1736574	11,129	19,679	1,080	31,888
2001	1744973	11,325	19,240	1,040	31,604
2002	1792112	11,705	19,208	1,056	31,968
2003	1791434	11,542	18,197	1,157	30,895
2004	1817008	11,916	18,123	1,324	31,363
2005	1788406	11,691	17,620	1,314	30,626
2006	1782610	11,549	17,078	1,349	29,976
2007	1802860	12,481	16,642	1,580	30,703
2008	1795662	12,444	15,895	1,676	30,015
2009	1822543	13,146	17,839	1,786	32,770
2010	1826068	14,320	19,868	1,405	35,593
2011	1824109	14,241	19,500	1,496	35,237
2012	1826032	14,132	18,889	1,749	34,769
2013	1840968	14,732	18,778	1,588	35,097

Source: Virginia Department of Social Services

## Appendix 8

**Table 11: Medicaid Enrollees as a Percentage of the Population by Year, 2009-2014**

Year	Virginia	Williamsburg	James City County	York County	Greater Williamsburg
2009	13.42	8.27	8.33	6.26	7.39
2010	14.08	8.91	8.67	6.79	7.85
2011	14.66	10.37	8.97	7.59	8.49
2012	15.09	10.43	9.41	8.07	8.92
2013	15.62	10.92	9.76	8.37	9.27
2014	15.78	11.42	9.75	8.59	9.41

Source: Authors' Calculations based on data from the U.S. Census Bureau and the Virginia Department of Social Services

**Table 12: Number of Medicaid Enrollees by Year, 2009-2014**

Year	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
2009	1,063,886	5,508	4,081	1,132	10,721
2010	1,129,713	5,830	4,442	1,262	11,534
2011	1,188,712	6,130	4,995	1,479	12,604
2012	1,236,732	6,540	5,306	1,524	13,370
2013	1,291,480	6,928	5,520	1,610	14,058
2014	1,313,599	7,079	5,698	1,678	14,455

Source: Virginia Department of Social Services

**Table 13: Number of Medicaid Clients by Age, Sex, & Race/Ethnicity (2014)**

Demographic Group	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
Under 18	733,990	4,319	3,245	997	8,561
18-64	466,284	2,324	2,041	584	4,949
65 and Older	113,318	436	412	97	945
Female	761,564	4,083	3,390	953	8,426
Male	552,027	2,996	2,307	725	6,028
White	581,244	3,268	3,160	647	7,075
Black	475,127	2,542	1,674	747	4,963
Other race	174,672	811	691	217	1,719
Hispanic	358,352	2,032	1,717	419	4,168

Source: Virginia Department of Social Services

**Table 14: Percent of Medicaid Clients by Age, Sex, & Race/Ethnicity (2014)**

Demographic Group	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
Under 18	55.9%	61.0%	56.9%	59.4%	59.2%
18-64	35.5%	32.8%	35.8%	34.8%	34.2%
65 and Older	8.6%	6.2%	7.2%	5.8%	6.5%
Female	58.0%	57.7%	59.5%	56.8%	58.3%
Male	42.0%	42.3%	40.5%	43.2%	41.7%
White	44.2%	46.2%	55.5%	38.6%	48.9%
Black	36.2%	35.9%	29.4%	44.5%	34.3%
Other race	13.3%	11.5%	12.1%	12.9%	11.9%
Hispanic	27.3%	28.7%	30.1%	25.0%	28.8%

Source: Virginia Department of Social Services



## Appendix 9

**Table 15: SNAP Clients as a Percentage of the Population by Year, 2005-2014**

Year	Virginia	Williamsburg	James City County	York County	Greater Williamsburg
2005	9.92	6.91	5.70	4.01	5.02
2006	10.27	7.74	5.96	4.23	5.33
2007	10.35	7.25	5.74	4.22	5.18
2008	10.77	7.63	5.84	4.31	5.31
2009	12.32	8.94	7.45	5.33	6.64
2010	14.32	10.69	8.80	6.41	7.92
2011	15.55	13.22	9.68	7.50	9.05
2012	16.39	13.20	10.40	8.06	9.65
2013	16.96	14.21	10.76	8.33	10.04
2014	16.33	14.10	10.15	8.29	9.73

Source: Authors' Calculations based on data from the U.S. Census Bureau and the Virginia Department of Social Services

**Table 16: SNAP Clients by Year, 2005-2014**

Year	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
2005	751,272	3,331	2,531	857	6,719
2006	788,458	3,645	2,706	991	7,342
2007	802,040	3,614	2,733	953	7,300
2008	843,341	3,762	2,796	1,015	7,573
2009	976,493	4,927	3,473	1,223	9,623
2010	1,149,555	5,918	4,195	1,515	11,628
2011	1,261,099	6,615	4,936	1,885	13,436
2012	1,343,272	7,233	5,297	1,929	14,459
2013	1,402,476	7,634	5,494	2,096	15,224
2014	1,359,367	7,368	5,501	2,072	14,941

Source: Virginia Department of Social Services

**Table 17: Number of SNAP Clients by Age, Sex, and Race/Ethnicity (2014)**

Demographic Group	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
Under 18	551,541	3,191	2,353	887	6,431
18-64	742,744	3,911	2,971	1,142	8,024
65 and Older	65,053	266	177	43	486
Female	765,634	4,239	3,200	1,165	8,604
Male	593,732	3,129	2,301	907	6,337
White	591,623	3,249	2,960	792	7,001
Black	529,083	2,832	1,852	954	5,638
Other race	75,000	382	365	187	934
Hispanic	154,486	748	290	225	1,263

Source: Virginia Department of Social Services

**Table 18: Percent of SNAP Clients by Age, Sex, and Race/Ethnicity (2014)**

Demographic Group	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
Under 18	40.6%	43.3%	42.8%	42.8%	43.0%
18-64	54.6%	53.1%	54.0%	55.1%	53.7%
65 and Older	4.8%	3.6%	3.2%	2.1%	3.3%
Female	56.3%	57.5%	58.2%	56.2%	57.6%
Male	43.7%	42.5%	41.8%	43.8%	42.4%
White	43.5%	44.1%	53.8%	38.2%	46.9%
Black	38.9%	38.4%	33.7%	46.0%	37.7%
Other race	5.5%	5.2%	6.6%	9.0%	6.3%
Hispanic	11.4%	10.2%	5.3%	10.9%	8.5%

Source: Virginia Department of Social Services

## Appendix 10

**Table 19: TANF Clients as a Percentage of the Population by Year, 2005-2014**

Year	Virginia	Williamsburg	James City County	York County	Greater Williamsburg
2005	2.38	1.34	1.07	0.71	0.93
2006	2.34	1.79	0.99	0.80	0.98
2007	2.18	1.40	0.83	0.74	0.84
2008	2.06	1.17	0.81	0.68	0.78
2009	2.23	1.59	0.94	0.80	0.94
2010	2.42	1.82	1.18	0.96	1.14
2011	2.41	1.94	1.20	1.14	1.25
2012	2.26	1.94	1.20	1.08	1.22
2013	2.08	1.68	1.24	1.04	1.20
2014	1.86	1.50	1.05	0.96	1.06

Source: Authors' Calculations based on data from the U.S. Census Bureau and the Virginia Department of Social Services

**Table 20: TANF Clients by Year, 2005-2015**

Year	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
2005	180,378	624	450	166	1,240
2006	179,388	606	514	229	1,349
2007	168,934	522	478	184	1,184
2008	161,280	522	442	156	1,120
2009	177,017	624	523	217	1,364
2010	194,549	791	628	258	1,677
2011	195,553	820	752	277	1,849
2012	185,234	836	712	283	1,831
2013	172,295	881	685	248	1,814
2014	154,991	763	639	220	1,622

Source: Virginia Department of Social Services

**Table 21: Number of TANF Clients by Age, Sex, and Race/Ethnicity (2014)**

Demographic Group	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
Under 18	98,288	474	397	143	1,014
18-64	56,564	289	242	77	608
65 and Older	138	0	0	0	0
Female	95,258	490	385	148	1,023
Male	59,733	273	254	72	599
White	52,529	284	284	69	637
Black	80,485	353	289	121	763
Other race	7,754	50	52	17	119
Hispanic	14,791	63	48	7	118

Source: Virginia Department of Social Services

**Table 22: Percent of TANF Clients by Age, Sex, and Race/Ethnicity (2014)**

Demographic Group	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
Under 18	63.4%	62.1%	62.1%	65.0%	62.5%
18-64	36.5%	37.9%	37.9%	35.0%	37.5%
65 and Older	0.1%	0.0%	0.0%	0.0%	0.0%
Female	61.5%	64.2%	60.3%	67.3%	63.1%
Male	38.5%	35.8%	39.7%	32.7%	36.9%
White	33.9%	37.2%	44.4%	31.4%	39.3%
Black	51.9%	46.3%	45.2%	55.0%	47.0%
Other race	5.0%	6.6%	8.1%	7.7%	7.3%
Hispanic	9.5%	8.3%	7.5%	3.2%	7.3%

Source: Virginia Department of Social Services

## Appendix 11

**Table 23: Number of Teen Births by Year, 1998-2012**

Year	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
1998	10,102	36	46	17	99
1999	10,090	50	59	7	116
2000	9,803	44	66	3	113
2001	9,577	36	49	8	93
2002	9,195	37	44	8	89
2003	8,941	31	48	13	92
2004	8,914	36	52	17	105
2005	8,905	45	34	21	100
2006	9,196	48	33	18	99
2007	9,306	37	41	12	90
2008	8,902	42	36	10	88
2009	8,284	43	37	16	96
2010	7,444	49	30	2	81
2011	6,572	41	25	7	73
2012	6,134	36	20	6	62

Source: Virginia Department of Social Services

**Table 24: Teen Birth Rate (per 100,000 population) by Year, 1998-2012**

Year	Virginia	James City County	York County	Williamsburg	Greater Williamsburg
1998	22	13	9.4	12.1	10.9
1999	21.7	17.7	11.9	4.9	12.6
2000	20.5	14.7	12.1	2.1	11.4
2001	19.7	11.3	8.6	5.6	9.0
2002	18.7	11.2	7.6	5.6	8.4
2003	17.9	9.2	8.1	9.4	8.6
2004	17.7	10.3	8.9	12.5	9.9
2005	17.6	13	5.9	15.1	9.4
2006	18.3	13.9	5.9	12.7	9.5
2007	18.4	10.5	7.6	8.2	8.7
2008	17.7	12	6.9	6.9	8.6
2009	16.4	10.9	6.5	10.6	8.6
2010	14.3	12.2	5.1	1.4	7.1
2011	12.7	10	4.2	4.6	6.3
2012	11.8	8.8	3.5	4	5.4

Source: Virginia Department of Social Services